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The Hakluyt Society.

BARENTS'S THREE VOYAGES TO THE ARCTIC REGIONS.

No. LIV.

TS

Caerte van Nova Zembla, de Weygats, de custe van Tartarien en Ruslandt tot Kilduyn toe, met anwysinge van de weeder vaert lancx de Noort: cust van Nova Zembla, en de overvaert omtrent de Weygats na Ruslandt tot de hoeck van Candenos en de mont van de Witte Zee.
Door Gerrit de Veer beschreven.
Baptista a Doetechum sculp. a° 1598.
NOVA ZEMBLA
TARTARIÆ PARS
RUSSIAE PARS
PIÆ PARS
Duytsche mylen 15 in een graedt
Colgoy
Texar
Pitsora
Candenos
Kilduyn
Colas
Olenos
LAP
Warsina
Ey landen
Weygats
Twisthoeck
Strate Weygats
Strate Eylandt
Oby fluvius
Matyla Velgo
Valcken hoeck
De ton hoeck
Fretien Nassau
C. Plantio
Loms bay
Groote bay
Lange nes
D'eerste hoeck
Cants hoeck
Swarte klip
Costint sarch
Cruys hoeck
Schans hoeck
S. Laurens bay
Meel haven
Lacch Eylandt
Hoeclaeghelandt
Twe Eylanden
D'Admiraliteyts Eylandt
Den swarten hoeck
Beert soort
Willems Eylandt
Cruys Eylandt
C. de Nassen
Het behouden Huys
Beerhoeck
C. de troost
Deeylande van Orange
De hoeck van beeyeerte
Wissingher hoeck
C. de Verius
Heemskercks hoeck
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THE THREE

VOYAGES OF WILLIAM BARENTS

TO THE

ARCTIC REGIONS

(1594, 1595, AND 1596).

BY

GERRIT DE VEER.

FIRST EDITION EDITED BY

CHARLES T. BEKE, PHIL.D., F.S.A.

1853.

Second Edition, with an Introduction,

BY

LIEUTENANT KOOLEMANS BEYNEN,

(ROYAL NETHERLANDS NAVY).

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T. RICHARDS, 37, GREAT QUEEN STREET, W.C.

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ERRATA.

Page xxvii, in Note 1, for *Zeemosche* Bay, read *Zeeuwsche* Bay.

Page lxii, in third line from bottom of page, for *Fiele*, read *Tiele*.

POSTSCRIPT.

THE Introduction to the second edition of this volume was already printed when the Arctic exploring ships, H.M.S. *Alert* and *Discovery*, returned to England, and I avail myself of this opportunity to express the feelings of admiration which the undaunted courage and perseverance displayed by its gallant crews have given rise to abroad; and to repeat, with warm enthusiasm, that "welcome-home" which is still finding expression over the whole civilised world.

The year 1876 will undoubtedly be written with golden letters in the annals of English Arctic exploring, for not only the north, but also the north-east, was the scene of English enterprise.

At the same time that Captain Nares and Captain Stephenson, under the most trying circumstances, succeeded in pushing the Government ships through the heavy barriers of ice which obstructed the outlet of Smith's Sound, another Englishman, Mr. Charles Gardiner, boldly penetrated the Kara Sea. Mr. Gardiner visited Barendsz Yshaven, and brought home from thence a valuable collection of highly interesting relics.

The following is a short account of this very successful cruise.

The yacht *Glow-worm* left Hammerfest (Norway) on June 23rd, and made her first ice on the 4th of July, being about twenty-five miles to westward of Goose Land (Novaya Zemlya). The approach to the land was found to be obstructed by solid icefields, but two days afterwards, Mr. Gardiner succeeded in reaching the land-water, and shaping his course north, he tried to get as far as Cape Nassau.

A continuance of westerly winds having blocked up the west coast entirely, Mr. Gardiner, a few miles north of Matotschkin Schar, was stopped by an impenetrable barrier of ice, which, closing upon the land, stretched itself far away to the westward. Finding the ice barrier which obstructed the entrance of Matotschkin Schar only two miles broad, Mr. Gardiner, under steam and canvas, forced his way through, and on the 20th reached the open water in the Straits. To his great surprise he found the Straits perfectly clear of ice, which, so early in the season, was a very unusual fact.

July 25th, his yacht reached the land-water along the east coast, and shaping her course for White Island, Mr. Gardiner boldly penetrated into the Kara Sea. Having got about thirty miles in that direction, his ship was brought up by a heavy solid pack, which stretched away to the eastward as far as could be seen. Judging that the westerly winds would have cleared the east coast of Novaya Zemlya, Mr. Gardiner steered north, with the intention of trying, if possible, to reach Barendsz Yshaven.

The weather now became most trying. Continual-

fogs, numerous icebergs, and, at intervals, ice all round, made the navigation in these almost unknown waters very dangerous. The little ship for many days had to grope her way along the coast like a blind man, but Mr. Gardiner, never yielding to all these dangers and obstacles, had the well-earned satisfaction of entering Yshaven at eight o'clock in the morning of the 29th of July. Finding the bay still filled up with fast ice, he anchored outside of it.

Amidst fogs and snow-drift he, during three days, made the most careful researches on and about the spot. He found the ruins of the Old House fallen completely into decay; but, leaving nothing untouched, and grubbing in every nook and corner, he gathered from under the ice a most splendid and highly interesting collection of more than a hundred different articles. Depositing a record of his having been there, Mr. Gardiner, on August 2nd, shaped his course for White Island.

In vain he attempted to make more easting. About thirty miles distance from the land his yacht was always stopped by impenetrable ice. This forced him to go south in the land-water, and on the 13th he arrived at Waygatz Island. In order to cross over to the Yalmal Peninsula, he had to push his way through very heavy ice; and while coasting north, along the low Siberian coast, a heavy pack was always in sight on his portbeam. On August 18th, very thick weather obliged him to drop his anchor. It blew a gale from the north-west, which, bringing the pack down on the land, threatened to force the yacht

ashore. The position was very dangerous indeed, and steam was ordered to be kept up ready at a moment's notice.

Not long after, a very large floe, some 1,000 yards in circumference, drifted down on the little ship, and the pressure was such that the cable with fifty fathoms parted. In a few minutes, the yacht drew only eight feet of water under her keel. Mr. Gardiner, however, not only succeeded in saving his ship, but next day got his lost anchor again; on which he boldly pushed further north. Three days afterwards, in 67 deg. 10 min. east longitude and 72 deg. 20 min. north latitude, he experienced very bad weather. A strong north-east gale, it being very thick, brought so much ice down that the ship could not hold her ground. This weather continuing, and it being rather late in the season, orders were given to return.

Passing Pet Straits on the 23rd, the yacht was back in Hammerfest on the 28th of August, after a most successful and interesting cruise, the history of which adds another bright page to the glorious annals of English enterprise.

The collection of the Barendsz relics, which were brought over to England, consisted of more than a hundred different objects. Remains of carpenters' tools, broken parts of old weapons, and sailors' materials, form the greater part of the collection. Among the most curious articles are a wooden stamp with seal, a leaden inkstand, two goose feather writing pens, a small iron pair of compasses, a little cubic die-stone, a heavy harpoon with ring, besides twenty

well-preserved wax candles, very likely the oldest in the world now existing. Besides these, there are three Dutch books, two Dutch coins, an old Amsterdam ell-measure, together with the ship's flag of Amsterdam, having been the first European colour which passed a winter in the Arctic Regions.

The authenticity of the Barendsz relics is now fully borne out, for in one of the powder-horns was found the well-known manuscript which Barendsz left behind, hung up in the chimney. Though much decayed, it is with the exception of a few words perfectly legible. It is not, as some have supposed it to be, a kind of journal, but merely a short record, giving the principal facts we knew already from De Veer's accounts. The dates it gives, perfectly agree with the aforesaid accounts, whilst the record is signed by Heemskerck and William Barendsz. The signature of Heemskerck is identified, but that of William Barendsz was, till now, unknown.

Mr. Gardiner, knowing that the relics brought home by Captain Carlsen in 1871, were bought by the Netherlandish Government, and convinced of the great interest which they possess for the native land of the great explorer, has most generously offered this collection to the Dutch nation. When this fact becomes known by the general public in Holland, we feel sure every true Netherlander will be very thankful to Mr. Charles Gardiner for this generous and courteous act.

L. R. Koolemans Beynen.

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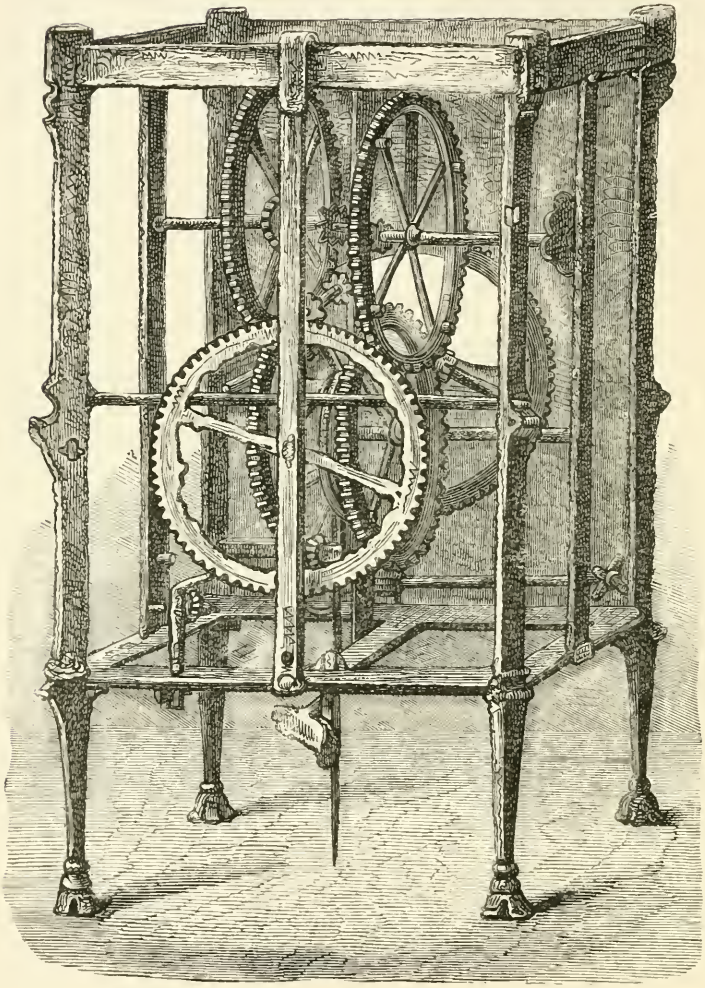

CLOCK FOUND IN THE BARENTS' HOUSE IN NOVAYA ZEMLYA.

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INTRODUCTION

TO THE SECOND EDITION.

BY

LIEUT^T. KOOLEMANS BEYNEN, R.N.N.

THE re-publication by the Hakluyt Society of the first true polar voyage ever made, is very opportune, now that the people of England have revived their interest in maritime enterprise and are waiting with anxiety the results of the Government expedition up Smith's Sound, where the brave explorers in the *Alert* and *Discovery* are enduring the hardships of an Arctic winter. A deep interest in this expedition, manifested in various ways, is felt throughout the whole civilised world, and never did ships sail to the Arctic Regions which were followed with greater sympathy or warmer wishes both at home and abroad. While we are waiting with increasing impatience for the first news of their proceedings, the voyages of the stout-hearted Dutch pioneers of Arctic exploration will be found exceedingly interesting, showing what the human constitution can endure under good leadership, and stimulated and controlled by

faith and discipline. They have set an example to all other Arctic navigators, by showing the necessity for being well prepared to sustain a winter in the polar pack. If future explorers should find themselves surprised amidst the ice, and consequently be obliged to winter, let them bear their hardships as those Dutchmen did, under the command of Heemskerck and the leadership of William Barendsz.

The narrative of the three voyages undertaken by the Dutch, towards the close of the sixteenth century, with a view to the discovery of a north-east passage to China, was printed for the Hakluyt Society in 1853. Then the learned Dr. Beke, the eminent traveller and geographer, wrote the introduction. But since that time Novaya Zemlya has been circumnavigated, the house in which Barendsz and his gallant companions wintered has been found, whilst its true position and those of many other points along the coast have been accurately determined. Moreover, the researches into the Archives and old State papers of the Netherlands have thrown much new light on the proceedings of the early Dutch Arctic explorers, and on the circumstances under which these voyages were undertaken.

For these reasons, it has been thought advisable, in this second edition, to lay before the members of the Society the results of subsequent research.

It will not be necessary to recall to mind the condition of the Netherlands at the close of the sixteenth century, now that the fascinating work of Motley,

on the *Rise of the Dutch Republic*, is familiar to every one. The heroic Dutchmen, assisted by their not less gallant English friends, had to fight against superior forces, composed of the best soldiers and led by the ablest generals of Philip of Spain. Disposing of resources such as no other prince of the period possessed, backed by the most renowned captains of the age, and aided by the religious fanaticism of his subjects, Philip was nevertheless unable to maintain his hold over the United Provinces, which sought to render their land independent of Spain, as they had formerly freed it from the sea. This land had been reclaimed by their fathers in ever recurring struggles, not only with the ocean, but likewise with the rivers Rhine, Maas, and Scheldt, which discharge their ice and waters into the North Sea. Their descendants still continue fighting against heavy odds to keep their land and property above water, notwithstanding the progress made in engineering and hydraulics. As an old ship at sea is kept afloat by continual pumping, caulking, and repairing, so, too, are the Low Countries preserved from destruction. This constant labour and enormous expense may be rendered useless at any moment by a sudden rise in the rivers, an equinoctial storm from the ocean, the breaking up of the ice, or the melting of the snow on distant mountains; so that, notwithstanding the indefatigable industry of the people, the bulwarks may be destroyed behind which they are never safe. In such a school were the old Dutchmen trained. They knew by sad experience

that their country could only be held by hard fighting with the sea, and it was also by hard fighting that they were enabled to gain their political independence, and the liberty to worship God as they pleased. But the war against Philip was very expensive, and laid a heavy charge upon the already over-burdened shoulders of the people. Agriculture and dairy farming could scarcely supply the means to cover the indispensable outlay necessary for keeping their land above water. Already, in a petition for the remission of taxes, addressed by the States of Holland to the Emperor Charles V, we read as follows :—

"That Holland is very small, both in length and breadth, almost with three sides exposed to the sea, and full of downs, swamps, turf-moors, lakes, and other unfruitful places, where one can neither sow corn nor graze cattle; wherefore the inhabitants, to find food for their wives and children, are obliged to go and trade and traffic in foreign ports, and to export certain tissues, for which reasons the principal profession of the country is the art of navigation and the sea trade."

Thus from the earliest times they had looked upon navigation and commerce as the great source of their wealth, and from this source they expected to get the means to carry on the war. It may be true that they worshipped the "almighty dollar", but not for itself, not only from a hope of gain, but also from the purest patriotism, because they could not continue their struggle for independence without money, and this could only be gained by giving more expansion to commerce, and not despising small advantages. Hence their natural resolution to search in every

direction for new trade routes, and to risk so many lives and ships on their desperate exploring expeditions in frozen latitudes, hoping to reach Cathay and the Spice Islands by going north-about. In that direction they expected to avoid the superior Spanish naval forces, which in the infancy of the great struggle they could not expect to conquer, as very soon afterwards, in 1609, was done by Heemskerck. He burned the Spanish fleet on their own shores, and thirty years later the gallant Admiral Marten Harpertszoon Tromp carried his broom at the mast-head. The cosmographers of the Netherlands were among the very best in the world, and were well acquainted with all the fruitless endeavours to find a shorter route to the Indies by the north-west.

Several voyages had been made by Englishmen, mentioned in Dr. Beke's introduction, towards the north-east, concerning which every particular was known in the Netherlands. This has since been proved by an irrefutable fact; for the so-called journals of Barendsz, which were in 1875 brought back to Norway, turned out to be a Dutch translation of the journals of the English navigators, Pet and Jackman, who, in 1580, endeavoured to find the north-east passage. This translation was found in the old wintering house of Barendsz in Novaya Zemlya, and consequently he must have taken it with him on his last voyage. There can, therefore, be no doubt that the Netherlanders had watched eagerly, and with intense interest, the attempts made by the English to find the north-east passage to

the Indies. This may be the reason why a few Netherlanders tried at first to penetrate over-land in that direction, for a certain Olivier Brunel succeeded in reaching as far as the Obi river, travelling all the way on *terra firma*. Thanks to the industrious and intelligent researches of the historian of "De Noordsche Compagnie", Mr. S. Muller, Fz., we now know a great deal more of this Olivier Brunel than Dr. Beke did in 1853.

The history of Brunel has especially roused Mr. Muller's interest, and the facts discovered during his researches are so surprising that we think we cannot do better than give them nearly *verbatim*.

At the time that the English settled themselves at the mouth of the Dwina river, in the neighbourhood of the monastery of St. Nicholas, they had spared no trouble to maintain themselves continually in the exclusive possession of the trade in these regions. In this they succeeded but for a short period.

Twelve years after their arrival on the shores of the White Sea, the Dutch had found, at least partially, the track of their predecessors.

In the year 1565, a certain Philip Winterköning, an exile from Wardöhuis, entered upon a negotiation with the Netherlanders. By his intervention a ship was sent out from Enkhuizen, and arrived at a spot, where a settlement was soon formed, to which they gave the name of Kola.

In the following year, 1566, two merchants of Antwerp, Simon van Salingen and Cornelis de Meyer, steering from Kola along the coast, ventured

to follow in the track of the English to the White Sea. They landed at the mouth of the Onega, and travelled, disguised as Russians, overland to Moscow. This courageous voyage was undertaken for no other object than to settle private affairs; and they did not avail themselves of the opportunity that thus occurred of establishing commercial relations with the White Sea.

However, the settlement at Kola now existed, and from thence efforts were made to carry on a direct trade with the Dwina. A trustworthy person was sent for that purpose on board of a Russian ship to Kholmogory, a town situated in the neighbourhood of the English settlement of Rose Island. He was instructed to learn the Russian language, and to try to obtain all possible information respecting the best manner of establishing commercial relations. That man was no other than Olivier Brunel, a character well known at that time, but in these days almost forgotten.

His name ought to be remembered and honoured as it deserves, for Brunel was not only the founder of the White Sea trade of the Dutch, but he was also their first Arctic navigator. For this reason a better account of him than has been given in the former edition, will not be found out of place here. Dr. Beke saw in Olivier Brunel and Alferius two distinct persons, and did not agree with Hamel that they were the same individual. It is, therefore, necessary in the first place to give Mr. S. Muller's arguments as to why he considers Hamel's opinion the most trustworthy.

We know (he says) that, in 1581, two persons, both going under the uncommon name of Olivier (of whom the one was "natione Belga", the other "domo Bruxella"), lived on the shores of the White Sea. When it is remarked that, in 1578, only a few Netherlanders went to those shores, this conformity of name and country is indeed very remarkable. The scholarship of both was the same. The one, Alferius, was, as Balak says, no scholar, but a man of skilful practice; the other, Brunel, had passed his life as a commercial discoverer in the north. There is also a striking conformity in the condition of life of the two men. Alferius, "captivus aliquot annos vixit in Moscovitarum ditione, apud viros illic celeberrimos Jakonius et Unekius." Brunel was for a few years a prisoner in Russia, and was delivered from his captivity by the Ameckers, who were very clever Russian merchants, living at Coolwitsogda, whom Brunel afterwards served. Jakonius and Unekius had already been taken by Lütke, who probably knew nothing of Brunel, to be the same as Jakov and Grigory Anikiew.

Hamel was convinced that by the "Ameckers" the Anikiews from Sol-Wütschegodsk only could be meant, although Scheltema, his authority, had changed arbitrarily "Coolwitsogda" (Sol-Wütschegodsk) into "Cool" (Kola).

To continue:—Alferius was sent to the Netherlands in 1581; Brunel went there every year. We find Alferius journeying along the coast of the Baltic; Brunel often travelled overland to Europe.

Alferius, in the service of his masters, had often been at the Obi; Brunel had been for years commercial agent of the Russians, who yearly traded with the Obi. Alferius started from the Netherlands with the design of seeking out the north-east passage; Brunel is known as the first Dutch Arctic traveller.

In fine:—Brunel was one of the inciters of the Dutch Arctic voyages, and spoke, therefore, with the South-Netherlander Moucheron. Alferius is known to have had the intention of visiting the South-Netherlander Mercator, with whose co-operation Moucheron gave that impulse which resulted in the first expedition of the Netherlanders to the Arctic regions.

From all this circumstantial evidence we must draw the conclusion that Alferius is the same personage as Olivier Brunel, and, based upon this conclusion, the following history of Brunel has been given by Mr. S. Muller.—

Olivier Brunel was born at Brussels in the first part of the sixteenth century. Of the early years of his life absolutely nothing is known. It may be that he went in 1565 with the first ships of Enkhuizen to Kola, or that, escaping from the tyranny of the Spanish Duke of Alva, he came over to Holland, together with a number of South Netherland merchant families, such as the Moucherons, the Le Maires, the Usselins, and others. However, it is quite certain that, soon after the establishment of the Netherlanders at Kola, he undertook the voyage to Kholmogory already alluded to. He was not lucky

on that occasion, for, watched by the English, who feared him as a rival, he was handed over to the Russian Government as a spy, and remained for several years a captive at Jaroslav. At last assistance made its appearance in the persons of the brothers Jakov and Grigory Anikiew, who belonged to the celebrated commercial house of the Strogonoffs at Solvitchegodok. These latter asked and obtained his liberty of the Czar.

The generous merchants had every reason to felicitate themselves on the benefit conferred upon Brunel. Their *protégé* took a zealous and active part in the yearly expeditions which were made by the Russians towards the East.

Brunel passed overland through the territory of the Samoyeds to Siberia, as well as by sea along the coast, and in one of his voyages, crossing the river of Petchora, at last he reached the long-desired Obi river. In one of these expeditions, which probably now and then went through the Matthew's Strait, a passage well known to the Russians, his guide, a Russian, brought him to Kostin Shar, a strait which by this means became known to Europe.

Soon, however, Brunel rendered himself of greater use to his masters by opening new roads for their trade. Being acquainted with the Dutch colony at Kola, and with the requisites for Dutch commerce, Brunel urged the plan of seeking towards the west for a mart to dispose of Russian produce. To put his plan into execution he himself started, accompanied by two relations of the Anikiews, and

provided with passports from the Czar. He hired a Dutch ship, and arrived safely at the city of Dort. There the Russian visitors found a ready market for the greater part of their goods. The rest was advantageously sold at Antwerp and Paris, and when Brunel next year returned to his patrons, the latter were well contented with the results of the voyage. They decided upon entering into a negociation with Kola, and from thence with the Netherlands. In this manner Brunel, as commercial agent of the Anikiews, yearly visited both places. This state of things did not last long. Brunel made use of his favourable position to put into execution the plan to accomplish which he had gone years before to Russia but with such bad success. He made arrangements with a certain Jan van de Walle, and in 1577 persuaded him to make a journey overland to Russia, accompanied by Brunel himself. Van de Walle made excellent use of the knowledge gained by him on this expedition, for the year following a Dutch ship under Captain Jan Jakobszmette Lippen, of Alkmaar, anchored for the first time in the Pudoshemsco mouth of the Dwina. This ship, having on board Van de Walle as agent, had sailed from Flushing and belonged to an Antwerp merchant named Gilles van Eychelenberg. Almost at the same time another ship arrived, belonging to the well-known Balthazar de Moucheron, and under the command of Adrian Crijt, a captain in the service of Balthazar. Thus the commerce of the Netherlands with the White Sea was established.

Soon after this, Melchior de Moucheron, as commercial agent of his re ation Balthazar, settled at the mouth of the Dwina, and the trading establishment was then transferred to a harbour in the neighbourhood of the monastery of Saint Michiel. On this spot, a few years subsequently, rose the city of Nova Kholmogory, commonly known as Archangel.

After some hesitation the English left their settlement on Rose Island and betook themselves to the young, but already prosperous, city of Archangel.

Two years had hardly passed after Brunel had set the Dutch trade with Russia on a secure footing, when we find him occupied with still more gigantic and adventurous designs.

As we know, in the year 1580 the English expedition, under the commanders Pet and Jackman, set out in search of the north-east passage. It was accompanied by the good wishes of thousands of persons who assembled to see it start, whilst the whole scientific world awaited with breathless expectation the result of this further effort. The Russians, also, who at the mouth of the Dwina daily came into contact with the servants of the Muscovy Company, doubtless heard of the expectations which were fostered about the north-east passage.

This being the case, surely it is not surprising that the Russians, possessing much more accurate knowledge of the Siberian coast than the English, should try to make use of that knowledge and also form plans to find the desired passage.

A Swedish ship-builder, who had for some years

been occupied in the service of the Anikiews, received the order to construct two ships fitted up with everything requisite for the exigencies of an Arctic expedition; and, on the other hand, Brunel, the Dutch voyager, was instructed to proceed to Antwerp and there hire, at almost any price, hardy sailors and mates, with whom these vessels were to be manned.

On his way thither, Brunel, in 1581, arrived at the Island of Oesel, in the Gulf of Riga. Here he had an interview at Arensburg with a cosmographer named John Balak, a friend of the renowned Gerard Mercator.

Balak, who took much interest in voyages of discovery, and who seems to have appreciated the enterprising genius of Brunel, gave him a letter of recommendation to Mercator at Duisburg. From that letter, happily preserved by Hakluyt, we know the plans and intentions of Brunel.[1] But Brunel desired that his native country, and not his Russian benefactors, should have the advantage of his researches. Acting upon this impulse, he, immediately after his arrival in Holland, tried to find acceptance for his favourite scheme.

It may, therefore, be supposed that a few merchants, and amongst them, beyond all doubt, De Moucheron, influenced by the zealous persuasions of Brunel, proposed to the noble Prince William the Taciturn a project for sending out an expedition in order to try and discover the north-east passage to

[1] See Dr. Beke's Introduction.

the Indies. Probably they claimed the aid of the Government to support their efforts; but the political situation of the country was too unsettled to allow the States to risk their money in so doubtful an undertaking. Nevertheless, the prince himself was greatly in favour of the expedition; yet, to support it with the funds of the nation was out of the question.

However, two such enterprising men as Brunel and De Moucheron were not so easily daunted; for the first Netherland Arctic voyage was undertaken in 1584, and, in all probability, was fitted out entirely at the expense of De Moucheron. But to Brunel belongs the honour of the voyage. This indefatigable traveller sailed with a ship belonging to the city of Enkhuizen, towards the north, to reach the far-off Empire of Cathay. Brunel, like a true Dutchman of the period—for the Dutch were then merchants to the very core—occupied himself on the way with entering into commercial relations with the Samoyed tribes.

In the records of the Archives of Utrecht, among the papers of Buchelius, Mr. Muller has discovered an old letter, in which it is recounted that Brunel had tried in vain to pass through Pet Strait.

Be this as it may, it is quite certain that his expedition was most unfortunate. On his return home, his ship, freighted with a rich cargo of valuable furs, mountain-crystal, and Muscovy glass, was wrecked in the shallow mouth of the Petchora river. Brunel, after this sad occurrence, being

perfectly aware that his country was unable at the moment to assist him in making a new effort, and not daring to return to the service of his former masters, the Russians, resolved to seek a new scene of action. Accordingly he presented himself to the King of Denmark, and offered him his services, in order to try and find the long-lost Greenland colonies. The proposal of the able Arctic traveller was eagerly accepted. Brunel immediately entered into the Danish service, and did not abandon the task before three vain attempts, made one after another, convinced him of the fruitlessness of his endeavours. But little more is known of the remaining period of his life.

Mr. Muller has called attention to some information furnished by Purchas' *Pilgrimes* iii, p. 831, of which the following is an extract :—"The rest of this journall, from the death of Master John Knight, was written by Oliuer Browne" (or Brownel,[1] this last letter *l* is unfortunately not distinct).

It may appear strange that so distinguished a seaman should have been on board a ship in a subordinate position. Yet, in all likelihood, this is the true Brunel, for other reasons justify the idea that he was in English service.

Firstly, Josiah Logan, in 1611, knew very accurately how to describe the manner in which Brunel had found "Kostin Shar".[2] Those particulars he could not have known from the very brief

[1] Brownel is the recognised English equivalent for Brunel.

[2] See Dr. Beke's Introduction.

details given in the Dutch accounts. Either he must have been personally acquainted with Brunel or have read something that was written by him.

And, secondly, the fact that Brunel, after his failure in his Arctic voyage (1584), had been constantly in Danish and English service, would account for his absence in the later Dutch Arctic voyages, and would sufficiently explain the want of acquaintance of Hessel Gerritsz with Brunel's further researches.

It, therefore, is by no means impossible that Brunel, together with Knight, quitting the Danish for the English service, again visited the north-west. After this we lose sight of Brunel. It is a great pity that the evening of the life of this great man should be lost in total obscurity. Even the year of his death is not exactly known. However, it is supposed to have taken place in the first years of the seventeenth century, because, in 1613, Hessel Gerritsz wrote of Brunel's voyage, as that of "Oliverii cuiusdam Brunelli".

The above is the history of Brunel, as related by Mr. S. Muller.

If his views are correct, then, in all probability, the first Dutch Arctic expedition took place in 1584. Now, in that same year, the King of Spain prohibited to the inhabitants of the Netherlands all trade with Portugal. Thus it is easy to comprehend that attention was drawn towards the finding of a northern passage, which would have enabled the Dutch to open a direct trade with the Indies. Con-

sequently during three successive years we see different expeditions leaving the Netherland ports, and boldly penetrating into the Arctic seas.

Dr. Beke has given, in his introduction, the principal outlines of the route taken by these expeditions. However, led away by the example of the German geographer, Petermann, Dr. Beke has made a mistake in laying down the track of Barendsz in his third voyage. This can be proved almost mathematically by an extract taken from a log, probably of Barendsz himself, which is preserved in the very rare work, "Histoire du Pays, nommé Spitsbergen, etc., par Hessel Gerard, à Amsterdam, 1613." This extract runs thus:—

"May 18, New Style. We set out from the Texel, and arrived on the 22nd at Fayril,[1] and in the neighbourhood of the Orkneys.

"June 5. We encountered ice, which, according to our estimation, came from Greenland; for we judged from our calculations that we were about 100 nautical miles distant from the said Greenland. The water was green with a brownish colour. Sounded without finding any bottom. The ice extended the whole length of the sea, south-east and north-west, and was either in pieces or in floes.[2]

"The next day we made our way N.E. and N.E. ¼ N. for a distance of 36 miles, and came upon a great ice-field, through which it was impossible to pass. Found no bottom at 120 fathoms. In our opinion, we were N.W. 220 miles

[1] Fair Island, an island half-way between the Orkneys and the Shetland Islands.

[2] Where, in the extract, miles are spoken of, they are nautical miles, or sixty in a degree of the equator.

off Luffoden Island, and 400 to 460 miles from the North Cape.

"Turning thence towards the east, we arrived at Bear Island on the 10th of June, in 74° 35′ latitude, and sailing N.E. we came upon an ice-field, against which we were anchored, and were obliged to return under the island.

"From Bear Island we set out, shaping our course W.N.W., thinking to find towards the north a better passage; for those of the other vessel wished constantly to draw towards the west, whilst I desired to go more eastwardly. We made until night, W.N.W., 64 miles, and during the night till the morning, N.W., 60 miles.

"June 14. Made till night, N. ¼ W., 88 miles. Then the weather clearing up, we found ourselves in the neighbourhood of ice, and we fancied we could see land to the north, but we were not certain.

"June 15. We hove to, sounded, without finding bottom with 150 fathoms. Sailed until noon S.E. and S.E. ¼ E., 20 miles, having attained 78¼° latitude. Then we sailed, wind aft east, 28 miles; and afterwards, till night, N.N.E., 20 miles. We passed a large dead whale, on which were several sea-gulls.

"June 16. Foggy weather, wind west, we sailed until noon, N.N.E., 84 miles. Came into the ice, and we had to keep away in order to follow the edge of the ice, N.E. 20 miles. Again we had to put back S.E. 24 miles, clear of the ice, till shaping a course S.S.W. 16 miles, we came again in the ice, which was in the morning.

"June 17. Weather calm until noon. We then found the latitude of 80° 10′. We tacked, having the wind right ahead to keep clear from the ice *(estoyons passe si, ou 6 lieues?)* Wind till night, west; found bottom at 90 fathoms. During the whole watch we continued steering S.S.W. 16 miles, having wind from the S.E. We then saw land, but still kept on towards the W.S.W. The land trended for about 32 or 36 miles, from W. ¼ S., towards E. ¼ N.

It was high land, and entirely covered with snow, and it extended from the N.W. to another point.

"June 18. S.W. $\frac{1}{4}$ W. 24 miles, and there we found the latitude of 80°. With wind W. and N.W. we sailed against the wind along the land till noon, the 20th. Then we had the western point of the land S.S.W. 20 miles. Continued to sail S.S.W. and S.W. $\frac{1}{4}$ S., 20 miles, and came close to a large bay, which extended into the land towards the south; and another bay, before which was an island, and that bay extended far towards the south. Then sailed anew from the land, and till night continued steering N.W. $\frac{1}{4}$ N., 8 miles, and came again in the ice, owing to which we had to return towards the south.

"June 21. It blew very hard and snowed much from the S.W., and we steered close to the wind, until night, anchored close under the land, near our companion, just before the entry of the channel. At 18 fathoms sandy bottom. At the east point of the month was a rock, which was moreover split, a very good landmark. There was also a small island or rock, about $1\frac{1}{3}$ from that eastern one. On the west point also, was a rock, very near.

"June 22. Took in ballast of 7 boatsful of stones, thus much because our ship was little ballasted. And came a great bear, swimming towards the ship, which we pursued with three boats. He was killed, and his skin was 12 feet long. This day we entered with the boat into the entry, to find a better port, which was necessary, and found inside the land all separated and broken and some islands, where was good anchorage in several spots.

"June 23. Looked for our true meridian by means of the Astronomical Circle, and found before noon 11, and after noon 16 degrees declination, that the compasses, or the needle turned towards the N.W., so that the circle proved not correct. We went out of the bay to seek how far the coast could extend itself, for the weather was very clear. Could not perceive the end of the land, which extended itself S. $\frac{1}{4}$ E., 28 miles, as far as a high and mountainous cape,

which looked as if it was an island. At midnight took the altitude of the sun 13°, so that we were at the latitude of 79° 24′.

"June 24. Before noon it was calm, with the wind S.W. The land (along which we shaped our course) was for the greatest part broken, rather high, and consisted only of mountains and pointed hills; for which reason we gave it the name of 'Spitsbergen'.[1] We sailed about S.W. and S.W. ¼ S., 28 miles, and then we were about 40 or 48 miles from the spot where we had anchored the first time more easterly.

"In the evening, we again kept out from the land, the north-western point of it was N.E. of us, and steered out of the coast W. and W. ¼ S., 32 miles. Until the end of the first watch, sailed towards the east, and steered S.E., 32 miles, until noon of the 25th. Then came close to the land, and sailed with wind aft, N.N.E., 8 miles. And anchored behind a cape in 18 fathoms sandy bottom; and it seamed to us there was ebb and flow, for we found in the time of 12 hours a current running from the S.W. and another running from the N.E., so strong that the buoys of our anchors hid themselves under the water. This bay, in which we were, ran rather far inland, with still another interior creek; on the south side there was a low cape, behind which one could sail, keeping along the northern coast and stopping behind the cape, having shelter from all winds. Our men found there teeth of walrus or sea-cows, for which reason we called that bay 'Teeth-bay'. We also found there much dung of stags, and some wool as of sheep. Just south of the cape was a little creek, like a harbour.

"June 26. We had the wind north, made sail, and steered S. ¼ E., 40 miles. At noon we arrived between the mountainous cape and the *terra firma*, thinking that the mountainous cape was an island. We sailed within S. ¼ E. and S., and being a little distance inside the cape, we found the depth 12 and 10 fathoms good sandy bottom, and being

[1] Spits- (pointed) Bergen (mountains).

entered, 32 miles; there was a depth of 50 fathoms stony bottom, and the land was all covered with snow. Entering about 20 miles between the cape and the coast of the *terra firma*, we found that the cape, which we thought to be an island, was attached by a sand-bank to the land; for we found a depth of 5 fathoms. There was ice on the shallows, so that we were obliged to return. That cape, which we thought to be an island, lies at 79° 5′ latitude; we called it 'Cape Bird', because there were so many birds upon it and in the neighbourhood.

"June 27. It was calm, so that we remained floating, without being able to advance between Cape Bird and the land.

"June 28. We rounded it, and then sailed S.S.W., 24 miles, always keeping along the land, which was very mountainous and sharp, with a beautiful shore. We sailed south and S. $\frac{1}{4}$ E., 24 miles, and afterwards S. $\frac{1}{4}$ W., 12 miles. Found, at noon, the latitude to be $78\frac{1}{3}$°, and we were then in the neighbourhood of ice. Sailed same distance seaward, to keep clear of the ice, and sailed thus along the edge of the ice and in the neighbourhood of the land S.E. $\frac{1}{4}$ S., 28 miles. And then we were close to a large bay, which extended itself in the land E.N.E., and was on both sides high and mountainous. Sailed with N.N.E. wind abaft till night all along the coast, S.S.E. and S. $\frac{1}{4}$ W., 20 miles. Then again there was a large bay, in which was much ice under the land. To keep out of the ice we steered a little W.S.W., and sailed S. $\frac{1}{4}$ W., 16 miles. Came into the ice, for which reason we sailed S.W. 12 miles.

"June 29. Continued, with a north wind, to sail S.E. $\frac{1}{4}$ E. and S.S.E. 20 miles. All along the coast, till noon, south 16 miles, and found at noon the latitude of 76° 50′. Sailed south and S.S.E. without finding land, until we saw Bear Island, on the first of July."

This is all that Hessel Gerritsz has copied out of the log of Barendsz himself, as he earnestly assures us.

Dr. Beke, speaking in his introduction of this extract, says :—

"Want of time and space prevents us from giving the subject any lengthened consideration. But from what we have been able to make out, our impression decidedly is, that it was never written by Barendsz, but was attributed to him solely for the purpose of giving to it an authority which it might otherwise not have possessed."

Dr. Beke then gives his arguments in support of this opinion, and in order to refute them Mr. Muller makes the following remarks :—

I do not see (he says) why, after the death of Barendsz, the important ship's log should have fallen into the hands of an inferior officer, even had he been a friend of the deceased. It would seem more probable, that after Barendsz's death the skipper and supercargo, Jakob Heemskerck, would have taken all possible care of that interesting document, and, on his return to his native country, would have delivered it to Plancius, or others entitled to it. Admitting that the log came into the hands of Plancius, we are not at all surprised that he should allow the perusal of its contents by his friend Hessel Gerritsz, to assist him in his work of proving that the Dutch were the real discoverers of Spitsbergen.

Dr. Beke's chief argument against the authenticity of the extract above given, is that in it, instead of Greenland, the newly discovered land is spoken of as being Spitsbergen, a name, according to him, only given to that island years afterwards. But Barendsz's

opinion that they sailed along Greenland is no reason why they should not have given the name of Spitsbergen to a part of that coast.

Mr. De Jonge, assistant-keeper of the Royal Archives at the Hague, and author of the "History of the Dutch East Indies Company", sets at least this question at rest by making mention of evidence which he found in the Archives at the Hague, given by Barendsz's companion, Captain Rijp, before the magistrates of Delft, in which it is said :—"And we gave to that land the name of Spitsbergen, for the great and high points that were on it."

De Veer,[1] it is true, does not make any mention of this name in his account, but the extract from the ship's log of William Barendsz, as Hessel Gerritsz gives it, contains other peculiarities, which are not found in "De Veer".

Dr. Beke, moreover, brings a charge against Hessel Gerritsz of having intentionally invented wrong courses, but there is no reason why he should have done so. For, in order to prove the discovery of Spitsbergen by the Dutch, he had only to refer to the work of "De Veer", and the invention of new courses would in no respect have

[1] Gerrit de Veer, son of Albert de Veer and Cornelia van Adrichem, belonged to an old and illustrious Dutch family. He was a younger brother of Ellert de Veer, who occupied the position of Councillor of Amsterdam, when Gerrit de Veer undertook his voyage to Novaya Zemlya. In April 1610, Ellert de Veer was sent to England as plenipotentiary, on which occasion he was knighted by James I. Gerrit de Veer died, unmarried, abroad.—Heraldic Library, 1874.

strengthened his arguments. The difference in the statements of the courses, and here and there in the account of the circumstances, proves sufficiently that we have here to do with two quite distinct documents.

And then, as Mr. Muller remarks, the journal of Barendsz, which gives fewer anecdotes but more courses, merits even more confidence than the indistinct statements of De Veer. The very accurate account kept of the courses, as well as of the observations, the total neglect of all that could give the journal an agreeable form, everything, in fact, concerning it, marks the extract as being a log, that is to say, a work not destined to be used as a pleasant history of the voyage. Moreover, Barendsz's statements are much more correct. Barendsz gives continually, and with great accuracy, the courses which are often changed several times on the same day, whilst De Veer says repeatedly : "The courses were about northerly", without giving any further indication. Barendsz gives what happened every day, whilst De Veer sometimes omits a few days. But the journal of De Veer especially loses in value when we come to compare his account with that of Barendsz. At once we perceive that he did not keep a strict daily account, but rather that he had written it at different intervals during the voyage ; for whilst in the main points both accounts quite coincide, the chronology of De Veer is entirely incorrect. Combining all these arguments, we may come to the final conclusion :—that the extract given

by Hessel Gerritsz is truly taken from Barendsz's log, and as such merits more credit than the account of De Veer.

This granted, we see that Barendsz's true track does not go north along the east coast, as Dr. Beke believes, but runs up along the west side of the land. Dr. Beke and Dr. Petermann have supposed Barendsz to have sailed up the east side, and to have circumnavigated the largest island in the group. This is not possible, for then Barendsz would have known it to be an island, and therefore could never have thought it to be a part of Greenland. The track as Dr. Petermann lays it down, has, up to the present day, never been followed by any known ship, although in the last ten years many attempts have been made.

One of the most successful of these voyages was that of Captain Nilsen, a Norwegian, who, in the remarkably favourable season of 1872, with his schooner *De Freia*, pushed as far as 79° 20′ N. latitude, the farthest point yet attained, on the east coast of Spitsbergen, coming from the south. Arriving at the very entrance of Hinlopen Strait, Captain Nilsen was prevented by impenetrable pack-ice from entering that strait, and had, after sighting Cape Torell, to retrace his steps.

The question whether Barendsz went north along the west or along the east coast of Spitsbergen, has been fully treated by Mr. P. A. Tiele, archivaris at Leyden, who has also demonstrated that the ship's track, laid down in the chart of J. Hondius, "Tabula

Geographica" of the year 1598,[1] has been printed after a drawing of William Barendsz himself.

With the extract from the log of Barendsz in our hand, and following the chart, we believe the true track of Barendsz's third voyage to have been as follows :—

On the 18th of May, 1596, the two ships left the Netherlands, and arrived on the 10th of June at Bear Island ; from whence they departed on the 13th, shaping their course in a north-westerly direction.

In the evening of the 14th, or in the morning of the 15th, they fancied they saw land.[2]

On the 15th they made more easting, till at the beginning of the first watch, when they began to steer again more north. On this course they made, till noon of the 16th, 84 nautical miles. The weather was foggy, and prevented their seeing any land towards the east. There they encountered ice, and sailed along the edge of it as much as the wind allowed, and late on the 17th they saw high land, entirely covered with snow.

Till noon of the 20th they continued, in latitude about 80°, to sail along that land, when they had the western point of the land S.S.W., only 20 miles. Continuing to sail S.S.W. and S.W. $\frac{1}{4}$ S., they passed two bays, which both stretched into the land towards

[1] This chart is also to be found, with a few additions, in Asher's *Hudson the Navigator*, and in Pontanus' *History of Amsterdam*, 1614.

[2] The south point of Prince Charles's Foreland?

the south.[1] In the evening of that day they made a fresh effort towards the N.W., but were again hindered by the ice from pushing further north, and had to return, anchoring on the evening of the 21st close under the land, in 18 fathoms, sandy bottom, surrounded by several rocks, of which one was split, "very good to recognise".[2]

On the 22nd they inspected, with one of their boats, the north-westerly point of the land, which they found to be only islands with many good anchorages.[3]

The following day they went out of the bay, and, the weather being very clear, they saw the coast stretching in a southerly direction, and found at midnight the latitude to be 79° 34′. In the evening they again made a vain effort to push farther in a more westerly direction.

On the 25th they anchored in a bay,[4] about 10 miles north of a high point, which they afterwards christened Cape Bird. That bay ran rather far inland, and by sailing round its northern shore, it was possible on the south side of the bay to find shelter from all winds behind a low point.

Early in the morning of the 26th they weighed the anchor, made sail, and arrived at noon between the

[1] The Red Bay and the Zeemosche Bay, with the Archipelago and the Mauritius Bay?

[2] Cloven Cliff, and the other islands of the archipelago?

[3] The north-western archipelago, with Amsterdam and Danish Islands?

[4] Magdalena Bay.

mountainous cape and the terra firma.[1] After sailing about 20 miles in a southerly direction, they saw much ice aground, and on sounding they found only 5 fathoms. These shallows[2] obliged them to return, but having to strive with foul winds, and being becalmed, they only, on the 28th, rounded the mountainous cape, which they called "Cape Bird", "because there were so many birds upon it and in the neighbourhood." This cape lay in 79° 5′ N. latitude.[3] Steering about 60 miles in a southerly course, they came close to a large bay, which ran into the land E.N.E.[4] Twenty miles farther they passed another large bay,[5] in which was "much ice under the land." To keep clear of the ice the course now became more westerly, and at noon on the 29th, in latitude 76° 50′, they lost sight of the land.[6] Sailing S. and S.S.E. they, on the 1st of July, returned to Bear Island, where they agreed to separate.

Barendsz, as we know, went to Novaya Zemlya, and Rijp steered again towards the north.

In deciding whether Rijp steered along the west, or went north along the east coast, opinions are again at variance. Hessel Gerritsz, in the same work, "Histoire de Spitsbergen, etc.", speaking on this question, says :—

[1] Sir Thomas Smith Bay.

[2] What is called in the chart, from Purchas' *His Pilgrimes*, vol. iii, "The Barr"?

[3] Faire Foreland, still known in the Dutch charts as Vogelhoek (Cape Bird)? [4] Ice Sound? [5] Bell Sound?

[5] The south point of Spitsbergen?

"Rijp and Barendsz, anchoring at Bear Island on the first of July, differed much in their opinions. Rijp calculated that the spot where they were lay N.E. of the North Cape in Norway, whilst Barendsz, on the contrary, maintained that it was N.W. Whilst the calculations of Barendsz led him to believe that he was 1000 miles distant from the Ice Cape of Novaya Zemlya, Rijp pretended to be only 250 miles distant from the same point, and because Barendsz thought it better to extend his knowledge of a land already somewhat known, and thus render easier the passage to the Strait of Anian, they resolved to separate. They both agreed that Rijp should investigate towards the north-west and Barendsz towards the N.E. So that Rijp again set sail towards the north, and came, after marvellous accidents from ice and winds, to the spot where they had anchored for the first time in 80°. He had also been up again to Cape Bird, and he returned from thence with the intention of rejoining Barendsz."

This statement of Hessel Gerritsz that Rijp proceeded to the same spot in 80°, where he had already been in company with Barendsz, agrees with the account of Pontanus in his work on Amsterdam, published in 1614; as well as with the information of Rijp himself, found in the old records by Mr. De Jonge.

Pontanus (p. 168), says: "That Rijp pretended they ought to retrace their steps till 80°." Whilst Rijp himself says "that they returned to the same spot where they had first been" (et prévient au lieu où ils avoyent esté premièrement).

This granted, and with the experience of past navigators before us, to prove the almost impossibility of going north along the east coast of Spitsbergen,

one would be inclined to conclude that Rijp must again have gone up along the west coast.

Dr. Beke's opinion, "that nothing worthy of remark can have occurred to him, or otherwise it could not have failed to be recorded", seems fully borne out by later research.

Sailing up to 80° N. latitude, Rijp found his further passage again intercepted by that ice-barrier which (as we are now aware) yearly obstructs the sea north of Spitsbergen. Not long after he sailed to Kola, and from thence returned home.

It is perfectly clear why Barendsz and Rijp should have followed the west coast in preference to the east. In his previous expeditions towards Novaya Zemlya, Barendsz had had to contend with masses of ice constantly driven towards the west, so that he had a perfect knowledge of the western current; and, consequently, he could not expect to penetrate along the east coast, against which the ice would be accumulating.

Not daunted in his heroic purpose by the remembrance of all the difficulties with which he had to grapple along the coast of Novaya Zemlya in penetrating through the pack ice, Barendsz decided upon again trying what could be done in that direction.

Subsequent research has added nothing to Dr. Beke's Introduction, as far as the further voyage of Barendsz is concerned; but we are able to lay before our readers the results of several other Arctic expeditions made by the Dutch after the return

on the 29th of October, 1597, of the survivors of Barendsz's heroic companions.

The results of the three voyages made before that date had been, as far as their real object was concerned, insignificant, and could not be called an encouragement to make another attempt to find the north-east passage; and, besides this, the necessity to search for it no longer existed.

In the same year in which Heemskerck and his companions entered the Maas, Houtman returned to the Netherlands with the first Dutch fleet coming from the East Indies. He had found, without great difficulty, his way to the East Indies, around the Cape of Good Hope, and consequently there was no longer any necessity to find a new route through the Polar ice.

But when, in 1602, the Dutch East India Company was established, and received, by its charter (to the detriment of all other Netherlands shipowners), the exclusive permission to sail to the East Indies round the Cape of Good Hope or round Cape Horn, a new inducement was given to the interlopers to seek the northern passage. The East India Company saw the danger which threatened it on that side, and was compelled, in its own interests, if possible, to be the first to discover the north passage, hoping thus to obtain the monopoly of the northern, as it already possessed that of the southern route.

The origin of most of the subsequent expeditions can be traced back to the contest between monopoly and free trade.

Hudson, the celebrated English navigator, had just returned from his voyage in 1608, when the East India Company seized the opportunity, and invited him over to the Netherlands, desiring to retain him in their service. After long negociations, an agreement was entered into, in which Hudson engaged to seek the north-east passage. Accordingly, on the 6th of April, 1609, Hudson started from the Texel in a small vessel called *De Halve Maan* (the Half Moon).

But among the interlopers was one Isaac le Maire, a clever merchant and an inveterate adversary of the Company, who, seeing the preparations made for the departure of Hudson, had not remained inactive. Thirty days later, by his zealous exertions, another ship was fitted out, in order, if possible, to out-do Hudson, and, consequently, the hated East India Company. This expedition was under the command of Melchior van Kerckhoven, who left the Dutch ports on the 5th of May, 1609.

Hudson had gone out with instructions to follow the example of Barendsz, in seeking for a passage north of Novaya Zemlya. On this occasion he was again unfortunate; for, as on his preceding voyage in 1608, he could not succeed in rounding Novaya Zemlya.

On the 5th of May he arrived at the North Cape of Norway; but before he had sighted Novaya Zemlya he was obliged by his mutinous crew to return.

On the 19th he again passed the North Cape, and

from thence sailed towards the N.W. to make new discoveries in that direction. In this he was much more successful.

On the other hand, the expedition of Isaac le Maire came to no better result. Melchior van Kerckhoven penetrated some distance into Pet Strait, but finding it perfectly blocked by ice of extraordinary thickness, he was obliged to return without having effected his object.

Both these expeditions tended to confirm the opinion already entertained of the great difficulty of finding, in that direction, the passage to the Indies. The number of those who maintained the possibility of finding a way straight across the Pole daily increased. So early as 1527 an Englishman, Robert Thorne, who lived at Sevilla, had strongly recommended this direction for reaching the Indies. A warm defender of his doctrines was found in the Dutch cosmographer Plancius. Maintainer of the existence of an open Polar Sea, Plancius argued that the cold gradually augmented as far as 66° latitude, but that from thence to the Pole it again decreased.

Accordingly, when in 1610 a certain Helisarius Roslin, medical doctor at Buchsweiler and court physician to the Count of Hanau, presented to the States a small book, in which he attributed the ill-luck of the former expeditions only to taking the wrong direction, this coincided with the views of the supporters of the doctrines proclaimed by Plancius.

Consequently, in the year following, two Nether-

landers, Ernst van de Wal and Pieter Aertsz de Jonge, requested the States-General and the Admiralty of Amsterdam to assist them in fitting out a new expedition. They positively believed they would find the northern passage, and jokingly remarked: "*That the sun at the far north was rather a manufacturer of salt than of ice*". The plan, notwithstanding the disapprobation of many, found support, and in 1611 the Admiralty of Amsterdam decided on giving their sanction to the new expedition. Two ships, *De Vos* and *De Craen*, were fitted out for the voyage. As commander of the expedition, Jan Cornelisz May, surnamed "The Man-Eater", was appointed. This experienced and skilful sailor had already been, in 1598, among the first Dutch navigators to round the Cape of Good Hope on his way to the Indies. On board of the ship *De Vos* Ernst van de Walle was appointed supercargo and Pieter Fransz mate. The ship *De Craen*, with Pieter Aertsz de Jonge as supercargo and Cornelis Jansz Mes as mate, was commanded by Symon Willemsz Cat.

On the 18th of March, 1611, the ships started; but, instead of going straight north, they again sailed towards Novaya Zemlya, visited Kostin Shar, but were prevented by the ice from penetrating into the Kara Sea. The ships were so damaged by their collisions with the ice, that they were obliged to return to Kildin to repair. From thence they sailed to North America, wintered there, and afterwards explored the coast-line between 47° and 42½′ N. lati-

tude. In one of the attempts to land, Pieter Aertsz de Jonge was killed by the natives.

In the beginning of 1612 the *De Craen* returned to Holland, but Captain May, with his ship the *De Vos*, sailed again towards Novaya Zemlya, where he arrived on the 30th of June, 1612. Setting out from thence he sailed to the north, along the coast of the island; but, notwithstanding his great perseverance, he met with no better success. He was checked by a vast barrier of ice, which stretched itself from the land in a north-westerly direction. He followed the edge of it until the 14th of July, when he had attained the latitude of 77°, and then returned to the coast of Novaya Zemlya, where he arrived on the 20th.

Between the 29th of July and the 9th of August he renewed his endeavours, and came as far as 77° 45′ N. His attempt to sail straight to the Pole proved a complete failure.

On the 26th of August he resolved to give up his trials, and to return to Holland, where he safely anchored about the 15th of September. Yet all these misfortunes did not affect the courage of the enterprising Netherlands merchants.

The many ships which in the following years left the Dutch ports, bound on voyages of discovery, were, however, without one exception, sent towards the north-west, where Hudson, in the last years, had gathered such unfading laurels. All these trials to the north-west gave, however, no better results than those to the north-east, and after many fruitless ex-

peditions in a north-western direction, we see, in the year 1624, a return to the old plans of the sixteenth century, which were all based on the principle of following a coast-line.

A ship called *De Kat*, with twenty-four hands on board, and provided with stores for two years and a half, was fitted out to renew the investigations towards the north-east. Cornelis Fennisz Bosman was appointed commander of the expedition, whilst Willem Joosten Glimmer accompanied him as supercargo.

As late as the 24th of June they left the Texel with the design to sail along the Russian coast through Pet Strait, in the direction of the Obi. From thence they intended to try to reach Cape Fabin, and seek through Strait Anian the way to Cathay. The highest expectations were entertained of this expedition, but the result did not bear them out.

On the 24th of July, passing the island of Kalgojew, they reached Novaya Zemlya on the 28th in 70° 55′ N.

On the 10th of August they entered Pet Strait, and only by great exertion did they succeed in pushing through it.

But on the 17th, when the sails were frozen as hard as a plank, so as to render all working of the ship impossible, the wind drove the ice-floes with such force against the ship, that it was driven back in the direction of Pet Strait. Anchoring in the strait, they had to contend with very heavy storms.

The ship was parted from her anchors, and the strait getting choked with ice, they resolved to retreat.

Upon the return of Bosman to Holland in the beginning of September, without having effected his object, the public was greatly disappointed, and almost denied the strenuous efforts he had made to conquer all difficulties. It seems that after this bad success the Netherlands merchants gave up all trials towards the north-east.

The English and Russians who afterwards continued to seek for a passage in that direction did not meet with better success.

In the year 1676 an English expedition was sent towards the north-east; but the commander, Wood, only explored the edge of the ice between Spitsbergen and Novaya Zemlya, without rounding this latter island.

Russian walrus-hunters and fishermen have also made many excursions in the seas around Novaya Zemlya. The greater part of the Russian expeditions were made with the object of reaching the Siberian rivers. Seldom did they go along the east coast northward of Matthew's Strait. In the *Archiv für Wissenschäftliche Kunde van Rusland*, these excursions are described more or less completely. Chronological order is adhered to, and this rather detailed account of the Russian expeditions extends from the year 1690 down to the voyages of Lütke, Bäer, and Krüsenstern.

One of the most remarkable recorded is that of

the Russian navigator, Sawwä Löschkin, in 1760, of which it is written :—

"That in the year 1760 a certain Sawwä Löschkin from Olonoz, formed the bold design of exploring the east coast of Novaya Zemlya, because this coast, till then never visited by Russian hunters, would surpass all other places in abundance of fur-animals. From this account of the expedition, which in a nautical point of view has never been surpassed, we know that Löschkin sailed along the east coast from Burrough Strait, as far as the N.E. point of Novaya Zemlya in 76° 9′. During this unprecedented voyage he had to overcome so many obstacles, in consequence of the ice, that he was obliged to winter twice on the east coast, and to use three summers in sailing to the N.E. point."

This information leads Mr. de Jonge to the conclusion that Löschkin must have wintered much more southwardly than Barendsz, else he would not have wanted three summers to reach the north-east point. For the rest, that the Russians seldom visited the north-east coast of Novaya Zemlya may be proved from the fact that, on a chart of the Northern Polar Sea of 1864, drawn after Russian data and published in the review of Erman, above alluded to, the north-east coast of Novaya Zemlya is laid down between 75° N. and 76° 59′, as being very uncertain and doubtful, and only with the three old Dutch names—"Ice Harbour, Cape Flessingue, and Cape of Desire".[1]

The Russian admiral, Lütke, who was employed in surveying the coast of Novaya Zemlya from 1821 to 1824, made all his attempts along the west coast, without being able, however, to round Cape Nassau.

[1] Mr. De Jonge, *Novaya Zemlya*, p. 24.

All these trials, made towards the north-east, fully show us the great difficulties which Barendsz had to encounter, and the gallant perseverance which enabled him to penetrate thus far into the frozen seas. A greater proof of this exists in the fact that in 1872 we find that the steamer *Tegethof*, under the skilful command of Lieutenant Weyprecht, not only failed in rounding Novaya Zemlya, but was entirely closed in by the mighty ice-floes, and driven powerlessly towards the north-east. However, the sea north of Novaya Zemlya was not always found obstructed by the ice. During a favourable season ships could penetrate far to the north-east without the slightest difficulty. This was often proved by the old Dutch whalers or walrus-hunters, who, sailing north of Novaya Zemlya, even passed into the Kara Sea.

The journal of Gerrit de Veer sufficiently proves that the year 1596 was by no means a favourable season. The Dutch walrus-hunters, among others Theunis Ys, Cornelis Roule, and William de Vlamingh,[1] repeatedly frequented these seas north of Novaya Zemlya; but we find no mention made of their having discovered Barendsz's winter quarters. Skipper William de Vlamingh seems to have passed nearest to it. Witsen, in his work, *North and East Tartary*, speaks of this skipper's voyage thus :—[2]

[1] See "Notes on the Ice between Greenland and Novaya Zemlya", by Captain M. H. Jansen, of the Dutch Navy (*Proceedings of the R.G.S.*, vol. ix, No. iv, p. 170).

[2] Mr. de Jonge, *Novaya Zemlya*, p. 25.

"I was informed by skipper William de Vlamingh of Oost Vlieland, that when he sailed in the year 1664 to catch whales, he succeeded in passing along the northern shore of Novaya Zemlya, and rounded the N.E. point of the island in order to try and be more prosperous in his fishery than he had been towards the west. Steering S. and S.W. he came near or about the house in which Heemskerck had wintered in the year 1596. From the house he sailed E.S.E. till in about 74° latitude, where he saw nothing but open water. He afterwards sailed back in the same direction, and 16 days after having lost sight of Novaya Zemlya he again anchored in the Vlie."

Combining all the information we find in the work of Witsen, there are reasons for believing that De Vlamingh went on shore on the west and on the north coasts of Novaya Zemlya, but not on the east coast.

Mr. de Jonge, speaking about this whaling cruise, remarks :—

"According to this account Vlamingh would have been near the house of Barendsz or thereabout, but Witsen does not say that Vlamingh went on shore there. This information leads us to conclude that Vlamingh did not see the wintering house at all, but simply presumed that he had been near to it or thereabout, or else surely he would not have failed to have mentioned it.

For the rest, the account of Witsen is rather vague, and exclusively depends upon verbal communications. These old voyages of the Dutch walrus-hunters, as well as those of the Norwegian fishermen in the present day, clearly show us that here, as well as in every other part of the Arctic Regions, a favourable season might allow the fortunate

navigator who happens to be on the spot to penetrate in a few days further than any of his predecessors, notwithstanding their unequalled perseverance and energy.

Within the last ten years the Norwegians, like the Dutch walrus-hunters of old, have been making continual inroads into the Kara Sea. This has been principally due to the discovery of rich fishing-grounds in that direction. The first of these Norwegian explorers was Captain Carlsen. With a small fishing-boat of Hammerfest he sailed through Pet Strait, and, following the Siberian coast, he reached White Island, near the mouth of the Obi river, without having fallen in with any signs of ice. It was, indeed, a bold undertaking to penetrate thus with so small a boat into the Kara Sea; but Captain Carlsen was fully rewarded for the risk he had run, in making a vast capture of blubber-yielding animals, which handed him over a profit of £1,100.

The voyage of the intrepid English walrus-hunter, Captain Palliser, who in that same season sailed as far as the north coast of Novaya Zemlya, was of no less importance. Being about half a degree north of Cape Nassau, he fell in with extensive ice-fields, which, however, were soon broken up by stormy weather.

Captain Palliser writes:—

"After the ice was broken up and driven away by the heavy gales, I believe I could have circumnavigated all Novaya Zemlya without much trouble. We were however prevented from doing so, on account of having on board

the crew of a wrecked fishing smack. For this reason a great decrease in our provisions had taken place, and consequently our store would not have been sufficient for so long a voyage."

Captain Palliser then shaped his course south, came through Matthew's Strait into the Kara Sea, and penetrated to within three or four miles of White Island.

However, both these voyages were surpassed in intrepidity by the interesting cruise of the Norwegian, Captain Johannesen.

On the 1st of May 1869, the schooner *Nordland*, Captain E. H. Johannesen, anchored at the Mersduscharsky Island, south of Kostin Shar. After sailing for some time in the direction of Burrough Strait, Captain Johannesen changed his course northwardly, and keeping the west coast continually in sight, he eventually passed Matthew's Strait on the 9th of June.

Ten days later he was close to Cape Nassau, where he experienced a strong easterly current.

From here, turning south, the *Nordland* sailed on the 17th of July through Matthew's Strait, and running south in the land-water along the east coast, Captain Johannesen was, on the 26th July, in Burrough Strait. At once he resolved to penetrate into the Kara Sea. He followed the low coast of the country of the Samoyeds in an easterly and afterwards north-easterly direction, and found himself on the 8th of August in the immediate neighbourhood of White Island without having been hindered by the ice.

The day following he shaped his course north-west, and attained, on the 15th of August, the estimated latitude of 75° 6′ N. and 71° E. longitude, where he encountered his first ice. Thence, in a westerly direction, he returned to Novaya Zemlya, which he sighted on the 20th in 75° 10′ N. latitude and 64° E. longitude. He now sailed along the east coast, and passed through Burrough Strait on his homeward voyage. He had repeatedly encountered a heavy swell from the south-east, but had scarcely met with ice. He must, undoubtedly, have been close to Barendsz's winter house, which is placed by Captain Carlsen in 76° 12′ N. latitude and 68° E. longitude.

Induced by these advantageous voyages, several Norwegian fishermen entered the Kara Sea in the following year.

Again the skilful Captain Johannesen made a cruise which almost surpassed his former one, having this time circumnavigated Novaya Zemlya, a feat never before achieved. He visited the east coast of that island, passing close to, but without perceiving, Barendsz's winter quarters.

F. Torkildsen, commander of the schooner *Alpha*, was less fortunate. On the 24th of June he passed through Burrough Strait and entered the Kara Bay, where he, on the 13th of July, in 68° 40′ N. latitude and 68° E. longitude, lost his ship. The crew was, however, saved. Captain E. A. Ulve sailed with his schooner *Samson* along the west coast of Novaya Zemlya, and on the 1st of August attained the high

latitude of 76° 47′ in 59° 17′ E. longitude, without sighting any ice.

Entering on the 8th of August through Matthew's Strait into the Kara Sea, and keeping between White Island and the Island of Vaigat, he, on the 24th of August, when homeward-bound, sailed through Burrough Strait.

F. E. Mack, with his schooner *Polarstern*, found, on the 5th of July, Matthew's Strait blocked up with ice; but thirteen days afterwards he sailed through it, and after crossing the Kara Sea in all directions, returned on the 21st of August through Burrough Strait.

Another navigator, Captain P. Quale, pushed more eastwardly. With his yacht, the *Johan Mary*, he, in the latitude of 75° 20′ N., attained the longitude of 74° 35′, and thus found himself eastward of the meridian which goes across the mouth of the Obi River.

The following year, encouraged by the partial success of these cruises, we find the Norwegian seal-hunters again entering this new and prosperous ground. The southern entries being closed by the ice, the captains directed their course northwardly, in order to penetrate into the Kara Sea by rounding Novaya Zemlya.

Passing over in silence the cruises of Captain F. C. Mack and those of the brothers Johannesen, we come to the interesting voyage of Captain Carlsen, the first navigator, who, since 1597, has entered the Ice Harbour of Barendsz. Captain Elling Carlsen, with

his sloop *The Solid*, left the harbour of Hammerfest on the 22nd of May, 1871. When rounding the North Cape of Norway, he met with very heavy squalls and snow-storms from the north-west.

On the 28th he passed Vardo, and on the 10th of June, in 68° N. latitude and 40° 36′ E. longitude, at the northern outlet of the White Sea, he fell in with the first ice. On the 16th of June he met two other ships, of which the one had already killed five hundred and the other a thousand seals.

On the 19th of July Captain Carlsen reached the coast of Novaya Zemlya, in the neighbourhood of Mersduscharsky Island, and shaping his course towards the north, he passed Cape Nassau, rounded Novaya Zemlya, and anchored on the 18th of August at Cape Hooft, on the east coast.

On the 24th of August, when he had advanced in a southerly direction almost as far as 76° N. latitude, he observed much drift ice at a distance of forty miles from the coast.

On the 29th of August Carlsen again steered north, and anew anchored at Cape Hooft. North of Matthew's Strait, Captain Carlsen had fallen in with Captain F. Mack, who was provided with better instruments, supplied by the Meteorological Institution at Christiania. By means of these instruments, both captains made very correct observations, with such success that they noted down the north-east point of Novaya Zemlya as lying in 67° 30′ E. longitude, instead of in 73°, as was given in the latest charts. They found that the land to the north-east

of Novaya Zemlya lay pointing more towards the north than to the north-east, as given in the previous charts. These observations proved the calculations of the old Dutch navigators to have been perfectly correct, and restored to them the reputation of which they had been so long defrauded.

As for the subsequent part of Captain Carlsen's voyage, we had better follow his own ship's log. In it he says :—

"Sept. 7. Strong breeze from the south with weather overcast, and two reefs in the mainsail. Anchored in the afternoon under the land near Barendsz harbour, where Barendsz wintered. Pumped the ship free.

"Friday, 8. Gale from the west with detached sky. We began to flinch (the animals we had caught on the 6th). Afternoon we finished flinching and repaired the gaff, which was broken. Let go also our port anchor. 8 o'clock pumped the ship free. During the night strong breeze.

"Saturday, 9. Strong breeze from the S.W. Sky overcast. 8 o'clock forenoon we went under sail and coursed south along the land. 6 o'clock in the afternoon, we saw walrus on the ice, boats were lowered, and we caught two of them; we also saw a house on shore, which had fallen down. At noon we observed the latitude 76° 12′, the distance from shore guessed. The house on shore was 16 metres long by 10 metres broad, and the fir-wood planks, of which it was composed, were $1\frac{1}{2}$ inches thick by from 14 to 16 inches broad, and as far as we could make out they were nailed together. The first things we saw amongst the ruins of the house were two ships' cooking pans of copper, a crowbar or bar of iron, a gun-barrel, an alarum, a clock, a chest in which was found several files and other instruments, many engravings, a flute, and also a few articles of dress. There were also two other chests, but they

were empty, only filled up with ice, and there was an iron frame over the fire-place with shifting bar.

"Sunday, 10. Light breeze from the N.W., almost calm, clear sky, we sailed along the coast S.S.E. In the afternoon we caught two walrus. 8 o'clock pumped the ship free. During the whole night calm.

"Monday, 11. Light breeze from the west. Sky overcast. In the afternoon the wind freshened from the west. We put three reefs in the mainsail. 8 o'clock pumped the ship free. The whole night gale from the S.W.

"Tuesday, 12. Gale from the S.W. We are obliged to return to Ledenaji Bay (Ice Harbour), where on the evening of the 9th we had found the ruined house. At noon we anchored in the bay, and went again on shore and found several things, viz., candlesticks, tankards with lid of zinc, a sword, a halberd head, two books, several navigation instruments, an iron chest already quite rusted.

"Wednesday, 13. Gale from the W.N.W. At noon we went under sail, but as we made a little south the wind shifted to the S.W., and in order to keep off we had to let go both anchors. Storm with snow. 8 o'clock pumped the ship free. During the night, light breeze.

"Thursday, 14. Calm with clear sky. 4 o'clock in the morning we went ashore further to investigate the wintering place. On digging we found again several objects, such as drumsticks, a hilt of a sword, and spears. Altogether it seemed that the people had been equipped in a war-like manner, but nothing was found which could indicate the presence of human remains. On the beach we found pieces of wood which had formerly belonged to some part of a ship, for which reason I believe that a vessel has been wrecked there, the crew of which built the house with the materials of the wreck and afterwards betook themselves to the boats. Five sailors' trunks were still in the house, which might also have been used as 5 berths, at least as far as we could make out. We now set to work to build a cairn, and erected a wooden pole 20 feet high. We placed in the

cairn a description of what we had found, shut up in a double tin-case, after which we returned on board and went under sail. At noon the wind was N.E., observed latitude about 76° 7′ N., longitude 68° E. (Greenwich). We steered in the direction S. by W. along the land. 8 o'clock pumped the ship free. The whole night light breeze."

Thus far, we have let the log speak for itself. After having quitted the house, Carlsen intended to return home by circumnavigating the island. Following, therefore, the east coast in a southerly direction, he soon passed several icebergs.

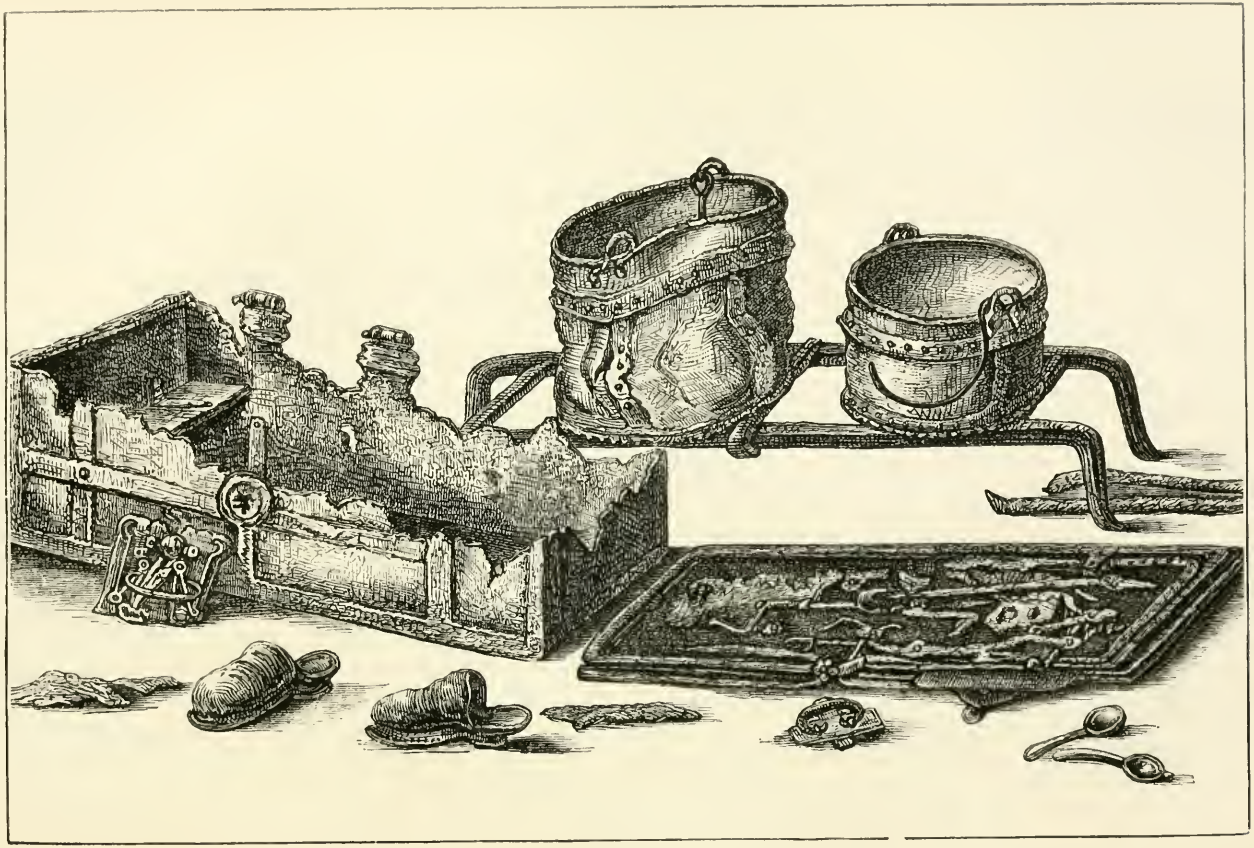
On the 16th of September he fell in with much ice, which probably by the west and north-west wind was driven from the land.

On the 18th it froze so stiff that they had to cut their way through the ice.

On the 19th, being becalmed, the ship could move neither forward nor backward. During the afternoon the wind freshened from the south-west, upon which they tried to approach nearer to the land.

On the 20th they had again to cut their way through the ice, which was already strong enough to bear them. Till eight o'clock in the evening they worked to reach a lead close to the land.

On the 21st, Carlsen, in about 74° N. latitude, was, during a storm from the north-east, in great danger of losing his ship. Closed in by the ice, he drifted that and both the following days with the ice, in a south-western direction, during which time he could see from the crow's nest open water towards the north-east and east. Not before the 30th of



RELICS FOUND IN THE BARENTS' HOUSE IN NOVAYA ZEMLYA.

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RELICS FOUND IN THE BARENTS' HOUSE IN NOVAYA ZEMLYA.

September, in 72° 25′ N. latitude, did he again succeed in reaching open water, thus, fortunately, escaping a fate similar to that of Barendsz.

The 3rd of October he sailed through Burrough Strait, and anchored on the 4th of November at Hammerfest, thanking God for his prosperous voyage. Thus Carlsen (like a true seaman) ends his log.

News of the discovery, by Captain Elling Carlsen, of a great number of relics on the beach of Ice Harbour, was soon spread in Hammerfest. In consequence, on the 12th of November, 1871, in the Hammerfest newspaper called *Finmarksposten*, there appeared a leading article entitled "Captain Elling Carlsen's Voyage around Novaya Zemlya". A detailed account was given in it of the old Dutch voyages towards the north-east. Notwithstanding some faults, the article was in its main points correct, and proved that in the far North of Europe the expeditions of Barendsz had attained a legendary celebrity.

About the discovery of the winter quarters at Novaya Zemlya the *Finmarksposten* communicates a few details which seem to have been given to the writer by Carlsen himself.

"After a lapse of 275 years" (says the Finmarksposten), "Captain Carlsen found himself in the very spot where, in 1596, Barendsz and his companions had come on shore, and near to the ruins of the simple hut constructed by the unfortunate Dutchmen. Captain Carlsen, as far as lay in his power, made researches on and about the spot, but the season being far advanced and the obligation he was under of circumnavigating Novaya Zemlya, obliged him to seize the first opportunity of proceeding on his voyage. Conse-

quently on the 10th of September, without having brought his work to a conclusion, he was obliged to sail.

"On the 10th and 11th he remained cruising, but in the evening of the latter day he found himself under the necessity of returning to Ice Harbour, and thus he was enabled to proceed with his investigations.

"On the 13th he set sail, but was again forced to return and anchor.

"On the 14th he was enabled to complete his researches. The house, fallen completely into decay, was so to speak covered and almost hermetically enclosed by a thick layer of ice. All the objects were likewise covered by a thick sheet of ice, and this explains the excellent condition in which many of the articles were found. Such was their unimpaired condition that one would be inclined to suppose that they had been placed there but a short time previously, and one never would believe that they had, during almost three centuries, been left uncared for. The house, as far as Captain Carlsen could make out, was 16 metres long by 10 broad, and nailed together out of fir-wood planks 1½ inches thick by from 14 to 16 inches broad. The house was in part constructed out of the materials of the wrecked ship, indications of which still existed in the remnants of a few oaken timbers scattered on the beach. The house seemed to have contained for the occupants 5 standing bed-places. There were 5 ship's chests, which were however too decayed to be taken away. In two of the chests were found a few instruments, such as files, sledge-hammer, a borer, two pairs of compasses, a few caulking-irons, engravings, a flute, pieces of navigation instruments, as well as a few books in the Dutch language, which latter makes it almost certain that the relics belonged to Barendsz and his companions of the year 1596. In the centre of the house, where the fireplace had probably stood, a great iron frame was found, on which two ship's copper cooking pans still remained. A few porringers were so rotten that one could only take away their copper mountings. In addition to

these were found candlesticks and tin-tankards, a crow-bar, two or more gunbarrels, a gunlock, an alarum with the clock and clock weight belonging to it, a great iron chest, a grindstone, a few spears and a halberd. Carlsen relates that round the house were found several large casks which had been provided with iron hoops, but the staves as well as the hoops were so rotten that no part of them could be brought home. Before Captain Carlsen left the place he erected in the neighbourhood of the house a cairn, on which he placed a pole 10 metres long. In the cairn was deposited a double tin case, containing a written account of his having been there on the 13th of September 1871, and of his having found articles belonging to the men of the Dutch expedition under Barendsz, who had wintered there in the years 1596-97."

Such are the particulars about the discovery of the relics in the winter-house of Novaya Zemlya.

Up to February 1872, the public in Holland remained ignorant of the discovery of the winter quarters of Barendsz, and that several objects, including a few books written in the Dutch language, were brought home. This news, however, when spread, caused a general sensation throughout the Netherlands, and measures were immediately taken by the Government to obtain possession of these interesting relics. Information was at once obtained as to their whereabouts, and it became known that they were already in the possession of Mr. Ellis C. Lister Kay, who, travelling as an English tourist in Norway, and being by chance at Hammerfest on the arrival of Carlsen, had immediately bought them. Upon learning the interest which the Netherlands Government took in these relics, Mr. Kay kindly gave them

up, accepting only the same amount as he had given to obtain possession of them. This courteous behaviour of Mr. Kay restored to the native land of the great explorer these precious relics, which had remained hidden for nearly three centuries. They were afterwards deposited in the model-room of the Naval Department at the Hague, where a model-house, having an open front, has been constructed for their reception. This is an exact imitation of the original at Novaya Zemlya. There these old and touching memorials of a noble achievement have found a final resting-place in the worthy company of a number of ancient objects, which each for itself silently points to some one of the many glorious pages in the annals of Dutch naval history. To demonstrate that these objects found by Captain Carlsen originally appertained to Barendsz and his companions, Mr. De Jonge says :—

"The relics bear in themselves the undeniable proof—1st, that they have belonged to Dutch navigators; and 2nd, that they must belong to the last period of the 16th century, and especially to that part included between 1592 and 1598, as I will prove out of the following description of the objects :—

"1. An iron frame on four iron feet, with three iron cross bars of which one is moveable (a kind of iron trivet), was found by Captain Carlsen in the centre of the house of Barendsz and Heemskerck, exactly resembling that iron frame which we see also represented in the centre of the house in the old illustration by Levinus Hulsius in 1598.

"2. A round copper cooking pan with handle. Found standing on the iron frames.

"3. A ditto larger one, with broken handle, the pan on

the upper side a little dinted. Found standing on the same place.

"4. Three copper bands, remains most likely of porringers, found close to the three objects above alluded to.

"5. A fragment of a copper scoop with handle.

"6. A round grindstone with iron axis."

"7. Fragments of a chest with metal handle belonging to it, besides four other pieces of iron. An iron box made to fit within the chest, in order therein to deposit valuables. All these things were half crumbled away.

"8. The iron cover of the chest (spoken of in No. 7), with intricate lock-work.

"9. An iron crow-bar, bent in the middle, at the lower end a point, the upper end formed like the tail of a swallow. The part which opens out is worn in a circular shape, having in all probability served as a rest for the axis of a spit.

"10. The sieve of a copper scummer.

"11. A tin plate.

"12. An iron bar in two pieces. This bar was sawn across at Hammerfest, as it was presumed to be a gun-barrel.

"13. Iron striker or sledge-hammer; the handle is broken.

"14. A borer or auger, with auger-bit. Such an auger is represented in the illustration, 'How made ready to sail back to Holland'.

"15. A ditto, one with larger auger-bit.

"16. Three gauges, without handles.

"17. A large chisel, with a wooden handle.

"18. An adze, of which the handle was broken.

"19. A caulking-iron.

"20. A borer, with the handle broken, and two other boring irons.

"21. Seven iron files, of different dimensions.

"22. A stone to whet tools.

"23. Two iron pairs of compasses.

"24. A broken pocket-knife or cutlass, with horn handle.

"25. A copper tap of a wine or beer cask. Excellently preserved.

"26. A wooden siphon of a beer or vinegar cask.

"27. A wooden trencher, painted red.

"28. An old Dutch earthenware jar, in which there was still a little grease. (See a similar jug in the illustration, 'How we were wrecked, and with great danger had to betake ourselves to the ice'.)

"29. A tin tankard, with lid and handle. Decayed.

"30. The lower half of another tankard.

"31. Three tin spoons, of which one is broken. Of the form used in the sixteenth and seventeenth centuries.

"32. The inner works of a lock.

"33. A ditto, larger one, with a part of the key.

"34. An iron weight, of 8 lbs.

"35. A padlock.

"36. Two leathern shoes or slippers. These shoes are too small for a full-grown man. They must consequently have belonged to the ship's boy, of whom there is mention in the journal of De Veer, on the 19th of October, 1596.

"37. Iron clock-work, in which are seven cog-wheels; the cover is of iron plates, but partly rusted. The dial-plate is lost, but one of the hands is still present. There is also a circular-shaped flexible piece of iron, quite rusted, probably the spring. In the journal of Gerrit de Veer, at the date of 27th of October, he makes mention, on that day: 'They set up the dial and made the clock strike.' On the 3rd of December, 1596, 'The clock was frozen and might not go, although we hung more weight on it than before'. This clock agrees in form almost perfectly with the clock drawn in the illustration of Hulsius. A similar clock is also given in the work entitled: 'Le Moyen-âge et la Renaissance', par P. Lacroix et F. Serré, Paris, 1851'. In the article 'Corporations de Métier', par A. Monteil et Rabutanz, is found a drawing: 'L'horloger, facsimilé de planche dessinée et gravée, par Jost Ammon'. This drawing represents a clock of similar construction to that found in Novaya Zemlya. This print, in 'Le Moyen-âge', seems to have been copied out of the work of Hartin Schopperus, entitled 'Pano-

plia, Omnium illiberalium, mechanicarum aut sedentariarum artium genera continens; Cum figuris a Jost Ammon. Francofurti, 1568'. Hence we come to the conclusion that the clock, with its weight, found at Novaya Zemlya, belongs, as is proved by its construction, to work of the sixteenth century. The application of the pendulum took place later, in 1658.

"38. One of the weights belonging to the clock.

"39. A metal clock. This clock, with four perches, stood probably upon the mechanism described in No. 37.

"40. A little iron hammer, without doubt part of the striking apparatus.

"41. Three copper scales of a balance, having served for weighing medicines. According to the journal of Mr. G. de Veer, 'a barber-surgeon joined the crew of Heemskerck and Barendsz'.

"42. A six-holed German flute, of beechwood, but without the mouth-piece. It is broken at the end.

"43. A part of an instrument, of which one end is constructed of wood. In this end is found a groove, a round opening, and a wooden tongue. To this wooden tongue is fastened a copper one, opening out in three parts, and ending in a point. It is difficult to say to what instrument this belonged; but it is not quite improbable that it has been fastened on the axis of a globe, in order to prick the chart. Globes and plain charts were used at this period for want of Mercator's projection.

"44. A wooden compass card, with moveable wooden hand, in the centre of which is found a round opening for the point of the axis.

"45. A wooden rectangle, with three circular segments one within the other, and subtending the rectangle. The longer arm is broken in three pieces.

"46. A semi-circular copper plate, whose case is curved in such a manner as to form a parallel. Through the middle of the plate runs a meridian, having in its centre a small screw, which was formerly moveable, but now fixed by rust.

On the left or on the west side of the meridian are drawn nine arcs, having their centre in the point of intersection of the meridian and parallel. On these arcs the degrees are indicated by ciphers, and between these arcs are found the Dutch words: Wassende Noordoostersche, Afgaande Noordoostersche, Wassende Noordwestersche, etc. It is difficult to say in what manner this instrument was used, but probably it is an instrument that has served for examining and determining the variations of the compass. If I dare express my opinion, I should say, that this is the instrument which Plancius, the master of Barendsz, invented to calculate the longitude at sea. Plancius was at that time much occupied with his theory of determining the longitude at sea, by means of the variation of the needle. For farther details see the work entitled: 'Rise of the Dutch power in the East Indies,' volume i, p. 86. According to Plancius there existed 8 meridians, under 4 of which there was no variation, and under the 4 others a maximum variation took place. Calculating upon these data Plancius imagined that the true longitude could be found. He therefore adapted a copper plate to the astrolabe employed at that period, and the object found by Carlsen is probably this very copper plate, the only one now extant.

"47. The handle of a sword beautifully formed. A similar handle is represented on drawing 61, letter B in the work of Mr. D vander Kellen, Jr., entitled: 'Antiquities of the Netherlands.'

"48. A sword with ditto handle.

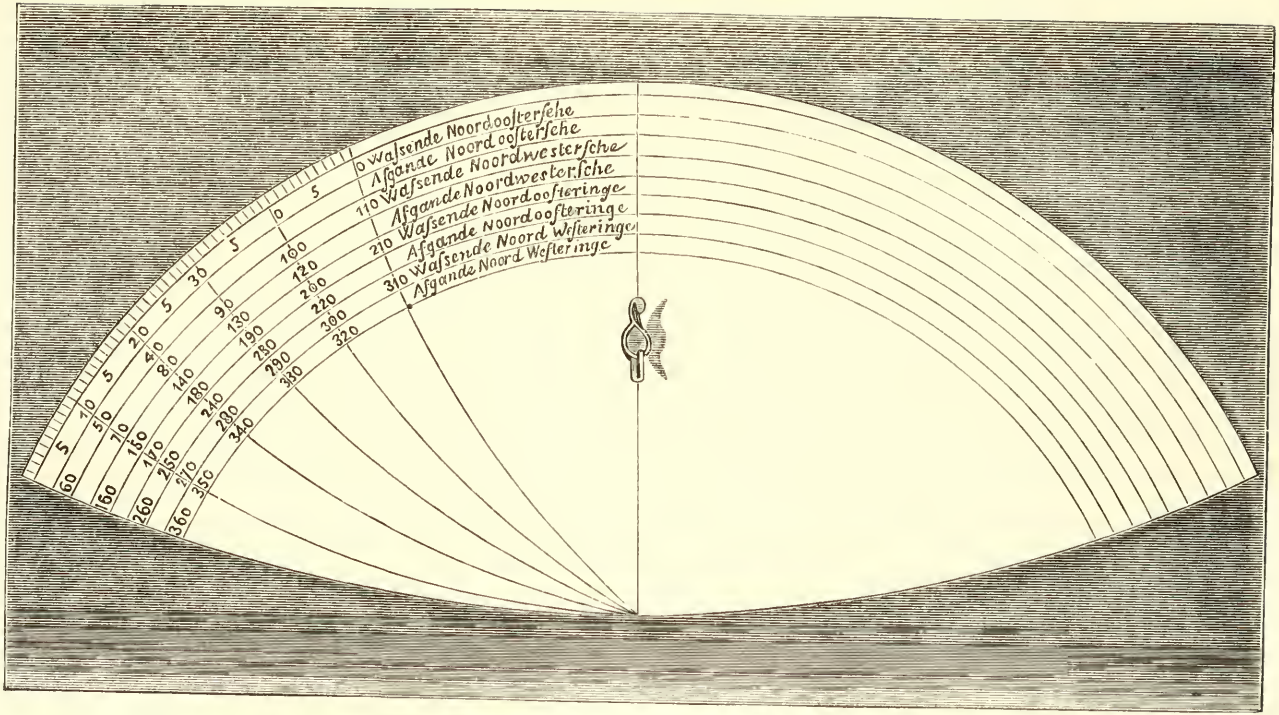
"49. The point of a sword.

"50. A part of a spear, with iron spearhead.

"51. Ditto head without wood.

"52. The point of a halberd. A nearly equiform halberd is represented in the illustration. 'The exact manner of the house wherein we wintered'.

"53. The barrel of a heavy musket or matchlock, with breach-pin, pan, matchstick, a sight on the fore part of the barrel. In the work 'Le Moyen-âge et la Renaissance',



INSTRUMENT FOR FINDING LONGITUDE.

par P. Lacroix, et F. Seré, Paris, 1851, T. iv. in the article 'Armurerie, armes à feu portatives', folio xxiii, by F. de Saulcy, is the following passage: 'L'arquebuse à mêche resta pendant longtemps l'arme ordinaire d'une partie de l'infanterie; seulement après en avoir diminué le poids on lui donna le nom de mousquet, et le mousquet à mêche était encore en usage dans les armées de Louis XIII'. To this kind of firearm belongs the barrel spoken of under No. 53. The mechanism, with which the match was brought on the panpowder was called 'le serpentin'. 'Le serpentin', says de Saulcy, 'exigeait que le soldat eût constamment sur lui une mêche allumée, ou le moyen de faire du feu: il fallait en outre compasser la mêche, etc. Pour remédier à cet inconvénient on inventa les platines à rouet, qui furent employées d'abord en Allemagne et fabriquées, dit on, pour la première fois en 1517 à Neuremberg. Dans la platine à rouet la complication du mécanisme avait trop d'inconvénients, pour qu'on ne cherchât pas à le perfectionner. Les Espagnols y parurent les premiers. La platine espagnole, appelée souvent platine de miquelet, présentait au dehors un ressort qui pressait à l'extrémité de sa branche mobile sur un bras du chien, l'autre bras de cette pièce lorsqu'on mettait le chien au bandé appuyait contre une broche, sortant de l'intérieur et traversant le corps de la platine. On retirait cette broche et le ressort poussait le chien, qui n'était plus retenu, et la pierre frappait sur un plan d'acier cannelé, qui faisait corps avec le couvercle du bassinet. Le choc de la pierre sur les cannelures de l'acier produisait le feu'. The matchlock under No. 57 seems to be a fragment of such a platine de miquelet.

"54. The barrel of a gun of smaller calibre, with three sights.

"55. Ditto.

"56. Ditto (broken).

"57. A part of a matchlock, with cock, and flint-stones.

"58. Nineteen copper powder horns, some of them covered with leather, and some still full of powder. These horns were suspended to a shoulder belt.

"59. An iron cannon ball.

"60. A tin bracket pitcher, beautifully engraved. Style Renaissance. Probably it belonged to the merchandise of which, according to de Veer, the ship's cargo partly consisted. The pitcher is in a perfect state of preservation.

"61. The upper half of another pitcher.

"62. Five tin candlesticks on pedestals, beautifully formed, as they were used in the sixteenth and seventeenth centuries. Probably merchandise.

"63. Five ditto, of another form, of which three are broken. Merchandise.

"64. Thirteen ditto, but again of another and smaller form ; in three of them the upper part is wanting.

"65. Two tin boxes, each divided into four compartments, of which the lower part, if you turn it, can be used as a drinking cup, the centre as a saltcellar, whilst the upper part is fit for a pepper box, the top of which unscrews.

"66. Two ditto, of which only the drinking cups and the upper part of the pepper box have been preserved.

"67. Two ditto, of which only the lower part of the drinking cups has been preserved.

"68. A tin medallion, on which is represented: 'Time that uplifts truth from the earth', and on which a marginal inscription is to be read: 'Abstrusam. Tenebris. Tempus. Me Educit. Tu Auras. H. G. (Henry or Hurbert Goltzius)'. Inside the margin is found: 'Veritas filia temporis'. Probably also an object of merchandise. A description of similar medals is found in the Dutch work of C. Leemans, in 'de Verslagen der Koninklijke Akademie van Wetenschappen'.

"69. A ditto medallion in a small wooden frame, representing a woman seated, holding in her right hand a cross, and in her left a chalice or goblet, from which a flame like light arises. Behind her lies one of the tables of the law. A symbol of religion, or of the New Testament.

"70. Two ditto medallions, in wooden frames, representing a woman with a child in her lap, and another in her

arms. A third child seeks refuge near her; this is probably a symbol of Mercy.

"71. Three copper parts of objects, the original destination of which is uncertain.

"72. Two wooden stoppers, either belaying pins, which are used on small ships to fasten ropes, or pieces of furniture. These objects have been erroneously taken by Captain Carlsen for drumsticks.

"73. Nine buttons, and the stopper of a tin bottle.

"74. The haft of a knife, and another object of carved wood. Not Dutch work, but apparently of Norwegian or Russian origin. Barendsz or one of his companions might have obtained these objects on the former expeditions. Moreover the trade with Archangel gave them opportunities of buying Russian or Norwegian articles.

"75. A great number of prints from copper engravings. These prints have been completely frozen together, and whilst in that state a beam or other part of the dwelling has fallen upon them, for they seem to have been broken whilst in congealed condition, and a thaw has reduced them to a compact mass. The prints are well executed, but the paper having become too weak, only some of the engravings have been removed, and those in a torn condition. Some of them represent Roman heroes, by Goltzius; the 'Defenders of Harlem', by Goltzius. 1857, subscribed Londerseel; 'Paradise', by Spranger, subscribed Bosscher; 'Pallas, Juno, and Venus in presence of Paris, with 'Bosscher excudit'. Scenes taken from the Bible, such as 'The meeting of Esau and Jacob', 'Tobias', etc. Also representations of Asiatic or Persian horsemen, etc.; a large drawing, showing a reposing lion, with the monogram HTR. (The *H* and *R* written together, and the *T* interlaced in the *H*). The manner of engraving the names of the engravers proves that all these must have been the work of the sixteenth century. It may seem strange that Arctic navigators had prints or engravings on board, but it is not at all so, for Heemskerck and Barendsz intended to go as far as China, when they

sailed to the North-East. For that purpose they had merchandise on board, and prints or engravings were often used as such. This had also been the case on the first voyage to the East Indies. On a list of goods and merchandise left at Patani, in Siam, in 1602, a great number of drawings by de Gheyn, Goltzius, Brengel, etc., are to be found, and among these, facsimiles of those discovered at Novaya Zemlya, namely, 'The Three Goddesses', 'The Roman heroes', etc.

"76. A folio book bound in leather, and with copper clasps, but half the binding has mouldered away. The beginning and the end of this book, as well as the edges, are much decayed, and the title of the first volume is quite obliterated. The book is divided into two parts; the first volume, of which the title is obliterated, has proved to be, after comparison with another specimen of this work, 'Die Cronycke van Hollant, Zeeland ende Vrieslant, tot den jare 1517, etc., tot Delft, by Aelbert Hendricus, wonnende op 't Meretveld, Anno 1585'.[1] The second volume, of which the title is intact, runs: 'Short and true account of the Government, and the most remarkable facts that occurred in the country of Holland, Zeeland, and Friesland, by Albert Hendriksz, anno 1585'.

"77. A book in quarto (the edges of which are much decayed), entitled: 'The Navigation, or the Art of Sailing, by the excellent pilote, Pieter de Medina, a Spaniard, etc; with still another new Instruction on the Principal Points of Navigation, by Michel Coignet. 't Hantwerpen, anno 1580'. At the bottom of the page, where the fifth chapter of the new instruction of Coignet begins, opposite to a copy of the Astrolabe (the number of the page is worn out), there is written in the old Dutch, '...y myn Jan Aerjanss... Pieter Janss...y (of 17) April ghinghen vij van...(lyberen

[1] The second volume of the work "Die Cronycke van Hollant, Zeeland ende Vrieslant", etc., was written by Ellert de Veer, the brother of Gerrit de Veer, and published by Lawrens Jacobsz at Amsterdam in 1591.

herte?)'. The two last words are almost illegible. Gerrit de Veer gives, at the end of his recital, the names of those who returned from Novaya Zemlya. Among these, the names of *Jan Aerjanss* and *Pieter Janss* are not to be found. These were, most likely, the names of two of the missing crew of whom the names are not mentioned. Of the seventeen persons who set out, only twelve returned safely to the Netherlands. A new translation, by Mr. Martin Everart Brug, of the work of Medina, had been published in 1598, by Cornelis Claesz, at Amsterdam, with Coignet's new instructions. As the copy found at Novaya Zemlya is a publication of 1580, it follows, as a matter of course, that the Dutch navigators who had left this copy, dated 1580, at Novaya Zemlya, must have started before the year 1598, or they would assuredly have taken the latest edition of so important a work, especially when printed at Amsterdam, from whence they started.

"78. A little book, with parchment cover, in octavo, having the form of a pocket-book, entitled, 'The History or Description of the great Empire of China'. This was first written in Spanish by Juan Gonzales de Mendoza, monk of the Order of St. Augustin, and then translated from the Italian into Dutch by Corn. Taemsz, and printed for Cornelis Claesz, book-seller, living at the Gilt Bible, in North Street, Hoorn, by Jacob de M——, printer, in the town of Alkmaar. The date of the edition of this copy cannot be given with exactitude, by reason of the mouldering away of the lower part of the title-page. The origin of the work can be deduced from the following facts: In the address to the Good Willing Reader, *verso* of the title-page, is written that 'this little book was edited after Jan Huyghen van Linschoten had returned to the Netherlands, but somewhat before the publication of the account of his voyage'. Jan Huyghen van Linschoten returned to Holland in the autumn of 1592, and the account of his voyage was published by Cornelis Claesz in 1595. Thus the translation of Mendoza must have been published somewhere between

1592 and 1595. I even believe that we can fix the date of the publishing to be 1595; for the copy found at Novaya Zemlya is exactly similar, both in form and type, to another copy still extant, published in Amsterdam by Cornelis Claesz in 1595. The edition of Amsterdam is exactly similar to the edition of Hoorn, except the title and the first twelve pages of the preface, which in the edition of Amsterdam are of the same purport, but printed in another type. The only difference between the two works consists in the type of the preface."

On the 17th of August, 1875, M. Gundersen, commander of the Norwegian schooner *Regina*, was the first after Carlsen who visited Barendsz's Ice Harbour. In a chest, the upper part of which was quite mouldered, he found an old journal, two charts, and a grapnel with four flukes, three of which seemed to have been purposely broken off. The charts, pasted upon sail-cloth, are much injured. The words "Germania inferior" may be read on them. The journal has proved to be a manuscript Dutch translation of the narrative of the English expedition of Pet and Jackman, 1580.

For the numerous abridgements and summaries of De Veer's work, I refer to the learned book of Mr. P. A. Fiele, at Leyden, entitled *Mémoire Bibliographique sur les journaux des Navigateurs Néerlandais: Amsterdam*, 1867.

INTRODUCTION TO THE FIRST EDITION.

BY

CHARLES J. BEKE, PHIL.D.

THE three voyages undertaken by the Dutch, towards the close of the sixteenth century, with a view to the discovery of a north-east passage to China, are deservedly placed among the most remarkable exploits of that enterprising nation; while the ten months' residence of the adventurous seamen at the furthest extremity of the inhospitable region of Novaya Zemlya, within little more than fourteen degrees of the North Pole, and their homeward voyage of upwards of seventeen hundred geographical miles in two small open boats, are events full of romantic interest.

The republication by the Hakluyt Society of the narrative of these three voyages, is most appropriate at this particular juncture, when public attention is so painfully absorbed by apprehensions as to the fate of Franklin and his companions. At all times would this work be read with interest, as giving in plain and simple language, which vouches for its truth, the first account of a forced winter residence in the Arctic Regions, patiently and resolutely endured and successfully terminated; but at the present moment it acquires a far deeper importance from its representation—faint, perhaps, and wholly inadequate to the reality—of the hardships which must have been undergone by our missing countrymen; happy if some of them shall have survived, like Gerrit de Veer, to tell the tale of their sufferings and of their final deliverance from their long captivity.

In adverting to the causes which led to these three expeditions, it would be quite superfluous to enter upon the general history of Arctic discovery. All that is requisite for the proper elucidation of the present subject, is an investigation of the actual state of our knowledge respecting the precise field of the labours of our Dutch navigators, previously to the date of their adventurous undertaking.

Three centuries have now elapsed since the first attempt was made to discover a north-east passage to China and India. The circumstances under which this took place, cannot be better detailed than in the words of Clement Adams, in his account of "the newe Nauigation and discouerie of the kingdome of Muscouia, by the north-east, in the yeere 1553", which is printed by Hakluyt in the first volume of his *Principal Navigations*.

"At what time our marchants perceiued the commodities and wares of England to bee in small request with the countreys and people about vs and neere vnto vs, and that those marchandizes which strangers in the time and memorie of our auncesters did earnestly seeke and desire, were nowe neglected and the price thereof abated, although by vs carried to their owne portes, and all forreine marchandises in great accompt and their prises wonderfully raised: certaine graue citizens of London, and men of great wisedome, and carefull for the good of their countrey, began to thinke with themselves howe this mischiefe might be remedied. Neither was a remedie (as it then appeared) wanting to their desires, for the auoyding of so great an inconuenience: for, seeing that the wealth of the Spaniards and Portingales, by the discouerie and search of newe trades and countreys was marueilously increased, supposing the same to be a course and meane for them also to obteine the like, they thereupon resolued upon a newe and strange nauigation. And whereas at the same time one Sebastian Cabota,[1] a man in those dayes very renowned, happened to bee in London, they began first of all to deale and consult diligently with him, and after much speech and conference together, it was at last concluded that three shippes should bee prepared and furnished

[1] Mr. Biddle, in his *Memoir of Sebastian Cabot* (8vo, London, 1831), has almost exhausted the subject of the exploits of this English worthy.

out, for the search and discouerie of the northerne part of the world, to open a way and passage to our men for trauaile to newe and vnknowen kingdomes.

"And whereas many things seemed necessary to bee regarded in this so hard and difficult a matter, they first make choyse of certaine graue and wise persons, in maner of a senate or companie, which should lay their heads together and giue their iudgements, and prouide things requisite and profitable for all occasions: by this companie it was thought expedient that a certaine summe of money should publiquely bee collected, to serue for the furnishing of so many shippes. And lest any priuate man should bee too much oppressed and charged, a course was taken, that euery man willing to be of the societie should disburse the portion of twentie and five pounds a piece; so that in short time by this meanes the summe of sixe thousand pounds being gathered, the three shippes were bought, the most part whereof they prouided to be newly built and trimmed."[1]

The three vessels thus fitted out sailed in company from Ratcliff on the 10th of May, 1553. On their arrival at Harwich, they were detained there some time; "yet at the last with a good winde they hoysed vp saile, and committed themselues to the sea, giuing their last adieu to their natiue country, which they knewe not whether they should euer returne to see againe or not. Many of them looked oftentimes backe, and could not refraine from teares, considering into what hazards they were to fall, and what vncertainties of the sea they were to make triall of."[2]

These gloomy forebodings were not long in finding their realization. In a violent tempest off the coast of Norway, two of the vessels, the Bona Esperanza and Bona Confidentia, in the former of which was Sir Hugh Willoughby, captain-general of the fleet, were driven far out to sea, and at length put into a small haven on the coast of Lapland, near the mouth of the river Warsina,[3] where the entire crews of

[1] Hakluyt, vol. i, p. 243. [2] *Ibid.*, p. 245.

[3] Lütke, *Viermalige Reise durch das nördliche Eismeer*, German translation by Erman (forming vol ii of Berghaus's *Kabinets-Bibliothek der neuesten Reisen*), 8vo, Berlin, 1835; pp. 12, 196.

both vessels, amounting in all to seventy souls, miserably perished from cold and hunger.

Before meeting with his untimely end, Willoughby, on the 14th of August, "descried land, which land (he says, in a note found written in one of the two ships) we bare with all, hoising out our boat to discover what land it might be; but the boat could not come to land, the water was so shoale, where was very much ice also, but there was no similitude of habitation; and this land lyeth from Seynam[1] east and by north 160 leagues, being in latitude 72 degrees. Then we plyed to the northward".[2] As the subject of Willoughby's voyage has been discussed by Mr. Rundall in a recent publication of the Hakluyt Society,[3] it is here unnecessary to say more than that, whatever may formerly have been the notions of geographers as to the coast reached by our hapless countryman, and to which the name of "Willoughby's Land" was given, the almost universally received opinion now is[4] that it was that portion of the western coast of Novaya Zemlya, which is called by Lütke the Goose Coast (*Gänseufer* in Erman's Translation[5]),—doubtless from the numbers of water-fowl found there,—and of which the North and South Goose Capes (*Syevernuy Gusinuy Muis* and *Yuzhnuy Gusinuy Muis*) form the two extremities. Mr. Rundall is therefore fully justified in claiming for Sir Hugh Willoughby, as he so earnestly does in his work just cited,[6] "the credit of having been the first Englishman by whom the coast of Novaya Zemlya was visited"; and as, further, Willoughby was not only the first Englishman, but also the first European, who had ever been there, the rule and usual practice in regard to new discoveries fairly warrants the ap-

[1] The island of Senyen, on the coast of Norway, in 69° N. lat.

[2] Hakluyt, vol. i, p. 236.

[3] *Narratives of Voyages towards the North-West*, Introduction, p. i, *et seq.*

[4] See Beechy, *Voyage of Discovery towards the North Pole*, p. 227.

[5] Page 312.

[6] Introduction, p. ix.

plication of the name of "Willoughby's Land" to this "Goose Coast", which our countryman was thus the first to visit and make known to us.

In thus attributing the discovery of Novaya Zemlya to Sir Hugh Willoughby, it is in no wise intended to deny that that island—or chain of islands, as it may be more correctly designated—was previously known to the inhabitants of the northern coasts of Russia. The name itself,—*Novaya Zemlya*, which in the Russian language signifies "the New Country" or "Newfoundland",—and the fact that the early European navigators, both English and Dutch, who followed in Willoughby's footsteps, met with native vessels on the coast, from the crews of which they learned their way and obtained various particulars of local information, are quite sufficient to establish the priority of the Russians.

Still, the discovery of a country, like any other discovery or invention in science or the arts, dates properly from the time when the knowledge of that discovery is first recorded and publicly communicated to the civilised world; and in this sense even the Russian admiral Lütke,[1] the great explorer of Novaya Zemlya in modern times, does not hesitate to acknowledge, that, owing to the absence of all written records bearing on the subject, his countrymen cannot pretend to lay claim to the "discovery" of Novaya Zemlya.

Richard Chancellor, pilot-major of Willoughby's fleet, was far more fortunate than his hapless chief. In the third vessel, the Edward Bonaventure, commanded by Stephen Burrough, he succeeded in entering the Bay of St. Nicholas, since better known as the White Sea, and on the 24th of August, 1553, reached in safety the western mouth of the river Dwina, whence he proceeded overland to the court of the Emperor of Muscovy or Russia, at Moscow. The result was the foundation of the commercial and political relations

[1] *Viermalige Reise*, etc., p. 1.

between England and Russia, which have subsisted, with but brief interruptions, till the present day.

Shortly after Chancellor had brought his section of Willoughby's expedition to so successful an issue, the company of merchant-adventurers, by whom the three ships had been fitted out, received a charter of incorporation, bearing date February 6th, 1 and 2 Ph. and Mar. (1554-5); and subsequently, in the eighth year of Queen Elizabeth (1566), they obtained an Act of Parliament, in which they are styled "the Fellowship of English Merchants for Discovery of New Trades"; a title under which they still continue incorporated, though they are better known by the designation of the "Muscovy" or "Russia Company".

It is not here the place to discuss the general proceedings of the Russia Company, important though they be, and highly deserving of being made the subject of special investigation. All that we have to do is to notice the expeditions which were undertaken under the auspices of that company, for the purpose of exploring the seas bounding the Russian Empire on the north, with a view to the discovery of a north-east passage to China.

Of these expeditions, the first was that of Stephen Burrough, who had in 1553 been the master of Richard Chancellor's ship, the Edward Bonaventure, and who now, in 1556, was despatched in the pinnace Searchthrift to make discovery towards the river Ob.[1]

Leaving Gravesend on the 23rd of April of the latter year, Burrough, on the 23rd of May, passed the North Cape, which he had so named on his first voyage, and on the 9th of June reached Kola, where he fell in with several small Russian vessels *(lodji)*, all "bound to Pechora, a fishing for salmons and morses".[2] The master of one of these boats, named Gabriel, rendered good service to Burrough, who is

[1] Hakluyt, vol, i, p. 274.
[2] *Ibid.*, p. 277.

diffuse in his praise of Gabriel's conduct, as contrasted with that of other Russian seamen with whom he had to do.

In the company of these native boats Burrough passed by Svyátoi Nos, called by him Cape St. John; Kanin Nos (Caninoz); the island of Kolguev, by mistake called in his journal *D*olgoieue; then the second Svyátoi Nos, and so to "the dangerous barre of Pechora". Passing still onwards, he, on St. James's day, July 25th, "spied certain islands", lying to the south of Novaya Zemlya, under one of which he anchored, naming it "St. James his Island",[1] and making its latitude to be 70° 42′ N., which according to Lütke[2] is about 10′ too far north. The next day they "plyed to the westwards alongst the shoare" of the southern extremity of Novaya Zemlya, where they met with another small native vessel, the master of which, named Loshak, told them that they were past the way which should bring them to the Ob; —that the land by which they were was "called Noua Zembla, that is to say, the New Land;—and that "in this Noua Zembla is the highest mountaine in the worlde, as he thought, and that Camen Bolshay,[3] which is on the maine of Pechora, is not to be compared to this mountaine; but" (adds Burrough cautiously) "I saw it not".[4]

On the 31st of July, Burrough was "at an anker among the islands of Vaigats"; on one of which islands he went on shore the following day. On Monday, the 3rd of August, he continues: "We weyed and went roome with another island, which was five leagues east-north-east from us; and there I met againe with Loshak, and went on shore with him, and hee brought me to a heap of the Samoeds idols, which were in number aboue 300, the worst and the most unartificiall worke that ever I saw. The eyes and mouthes of sundrie of them were bloodie; they had the shape of men,

[1] Hakluyt, vol. i, p. 280. [2] Page 14.

[3] Bolschoi Kamen (Lütke, p. 14), signifying "the great rock", *lit.* "stone". [4] Hakluyt, vol. i, p. 280.

women, and children, very grosly wrought; and that which they had made for other parts was also sprinckled with blood. Some of their idols were an olde sticke, with two or three notches made with a knife in it. I saw much of the footing of the sayd Samoeds, and of the sleds that they ride in."[1]

These particulars clearly prove that the spot thus described by Burrough is Bolvánovsky Nos (Image Cape), at the north-eastern extremity of the island of Vaigats, in 70° 29′ N. lat., which place, according to Lütke,[2] was visited by Ivanov in 1824, and found to be in precisely the same state as represented by its English discoverer. There is a second cape of the same name at the south-eastern extremity of Vaigats Island, in 69° 40′ N. lat., which is the *Afgodenhoeck* (Idol Cape) of Linschoten and the *Beeldthoeck* (Image Cape) of De Veer, and which is described by the latter in his account of their second voyage, at pages 53 and 60 of the present volume. Lütke[3] erroneously identifies this latter cape with the one discovered by Burrough; but this is evidently a mere oversight, as the two capes of the same name are distinctly laid down in his chart.

On the 5th of August, fearing to be hemmed in by the ice, which approached his ship in immense masses, Burrough returned westwards, and then southwards; and on the 22nd of the same month, on account of the north and north-easterly winds, the great quantity of ice, and the advanced season of the year, he determined on not attempting to proceed further to the east, but returned round Kanin Nos into the White Sea, and so to Kholmogorui (Colmogro), the Russian port on the Dwina previously to the foundation of Archangelsk,—Archangel, or Novo-Kholmogorui, as it was at first called,—where he arrived on the 11th of September.[4]

The passage by which Burrough thus sailed between

[1] Hakluyt, vol. i, p. 280. [2] Page 14. [3] Page 29.
[4] Hakluyt, vol. i, p. 283. See also pp. 284, 417, 464, 465.

Novaya Zemlya and Vaigats into the Sea of Kara, is that which by the Russians is called Karskoi Vorota—the Kara Gate or Strait; and as he was the first navigator who is recorded to have been there, he must be regarded as the "discoverer" of that Strait. And that he was so considered by his contemporaries is established by the fact, that, in the instructions given by the Russia Company, in 1580, to Pet and Jackman,[1] that entrance into the Sea of Kara is actually denominated "Burrough's Strait".

For several years after Stephen Burrough's voyage in the Searchthrift, the Russia Company appear to have directed their attention principally to the trade with the White Sea, and thence, overland, with the interior of the continent both in Europe and in Asia. Still, it must not be imagined that they at all abandoned the idea of a north-east passage to China. On the contrary, there is evidence in the instructions given by them on the fitting out of two expeditions, at intervals of twelve years each, that the subject was not lost sight of by them, and that they neglected no means of obtaining information, with a view to the eventual realisation of the scheme which was their principal object in the original formation of the company.

The former of these two expeditions was in the year 1568, when James Bassendine, James Woodcocke, and Richard Browne were appointed to undertake a voyage of discovery along the northern coast of Russia, "from the river Pechora to the eastwards". Of this undertaking no memorial appears to be extant, except the "Commission" issued to the adventurers; so that it is impossible to say what its success was. But the instructions contained in that Commission are in themselves of so interesting a character, as showing in a precise and definite form the extent of the knowledge of the Arctic Ocean to the east of the White Sea, possessed by the English at a date mounting up to nearly three cen-

[1] See page lxxv of the present Introduction.

turies from the present time, that no apology will be necessary for here reprinting it from the pages of Hakluyt.[1] It must be premised that the date attributed by that author to this document is 1588; which is, however, clearly a misprint. For, in the first place, it was in 1568 (not 1588) that Thomas Randolph, by whom the Commission was signed only a few days after his arrival in Russia,[2] was appointed ambassador to that country, he having in the following year returned to England;[3] while in the year 1588 it was Dr. Giles Fletcher who was our ambassador.[4] And, secondly, this Commission, though appearing to bear the latter date, is placed by Hakluyt in chronological order among the documents of the year 1568.

A Commission *given by vs, Thomas Randolfe, ambassadour for the Queenes Maiestie in Russia, and Thomas Bannister, etc., vnto Iames Bassendine, Iames Woodcocke, and Richard Browne; the which Bassendine, Woodcocke, and Browne we appoint ioyntly together, and aiders the one of them to the other, in a voyage of discouery to be made (by the grace of God) by them, for searching of the sea and border of the coast, from the riuer Pechora to the eastwards, as hereafter followeth. Anno* 1568, *the first of August.*

Imprimis, when your barke with all furniture is ready, you shall at the beginning of the yere (assoone as you possibly may) make your repaire to the easterne part of the riuer Pechora, where is an island called Dolgoieue, and from thence you shall passe to the eastwards alongst by the sea coast of Hugorie, or the maine land of Pechora; and sailing alongst by the same coast, you shall passe within seuen leagues of the island Vaigats, which is in the straight, almost halfe way from the coast of Hugorie unto the coast of Nona Zembla; *which island Vaigats and Noua Zembla you shall finde*

[1] *Principal Navigations*, vol. i, pp. 382-3.

[2] He arrived at the monastery of St. Nicholas, at the western mouth of the Dwina, on July 23rd, 1568.—*Hakluyt*, vol. i, p. 376.

[3] He embarked at St. Nicholas about the end of July, 1569, and arrived safely at London in the month of September following.—*Hakluyt*, vol. i, p. 378.

[4] Hakluyt, vol. i, p. 473.

noted in your plat, therefore you shall not need to discouer it, but proceed on alongst the coast of Hugory towards the river Obba.

There is a bay betweene the sayd Vaigats and the river Obba, that doth bite to the southwards into the land of Hugory, in which bay are two small riuers, the one called Cara Reca, the other Naramsy, as in the paper of notes which are giuen to you herewith may appeare: in the which bay you shall not need to spend any time for searching of it, but to direct your course to the river Ob (if otherwise you be not constrained to keepe alongst the shore); and when you come to the river Ob, you shall not enter into it, but passe ouer into the easterne part of the mouth of the sayd riuer.

And when you are at the easterne part of the mouth of Obba Reca, you shall from thence passe to the eastwards, alongst by the border of the sayd coast, describing the same in such perfect order as you can best do it. You shall not leaue the sayd coast or border of the land, but passe alongst by it, at least in sight of the same, untill you haue sailed by it so farre to the eastwards, and the time of the yeere [be] so farre spent, that you doe thinke it time for you to returne with your barke to winter, which trauell may well be 300 or 400 leagues to the eastwards of the Ob, if the sea doe reach so farre, as our hope is it doth; but and if you finde not the said coast and sea to trend so farre to the eastwards, yet you shall not leaue the coast at any time, but proceed alongst by it, as it doth lie, leauing no part of it vnsearched or [un-]seene, unlesse it be some bay or river, that you doe certeinly know by the report of the people that you shall finde in those borders, or els some certeine tokens whereby you of your selues may iudge it to be so. For our hope is that the said border of land and sea doth, in short space after you passe the Ob, incline east, and so to the southwards. And therefore we would haue no part of the land of your starreboord side, as you proceed in your discouery, to be left vndiscouered.

But and if the said border of land do not incline so to the eastwards as we presuppose it, but that it doe proue to incline and trend to the northwards, and so ioyne with Noua Zembla, making the sea from Vaigats to the eastwarde but a bay; yet we will that you do keepe alongst by the said coast, and so bring us certaine report of that forme and maner of the same bay.

And if it doe so proue to be a bay, and that you haue passed round about the same, and so by the trending of the land come backe vnto that part of Noua Zembla that is

against Vaigats, whereas you may from that see the said island Vaigats; if the time of the yeere will permit you, you shall from thence passe alongst by the said border and coast of Noua Zembla to the westwards, and so *to search whether that part of Noua Zembla doe ioyne with the land that Sir Hugh Willoughbie discouered in anno* '53, *and is in* 72 *degrees and from that part of Noua Zembla* 120 *leagues to the westwards*,[1] as your plat doeth shew it unto you; and if you doe finde that land to ioyne with Noua Zembla, when you come to it, you shall proceed further along the same coast, if the time of the yere will permit it, and that you doe thinke there will be sufficient time for you to returne back with your barke to winter, either at Pechora or in Russia, at your discretion; for we refer the same to your good iudgements, trusting that you will lose no time that may further your knowledge in this voyage.

Note you, it was the 20 of August, '56, yer[2] the Serchthrift began to returne backe from her discouerie, to winter in Russia; and then she came from the island Vaigats, being forcibly driuen from thence with an easterly winde and yce, and so she came into the riuer Dwina, and arriued at Colmogro the 11 of September, '56. If the yce had not bene so much that yere as it was in the streights on both sides of the island Vaigats, they in the said pinnesse would that yeere haue discouered the parts that you are now sent to seeke; which thing (if it had pleased God) might haue bene done then; but God hath reserued it for some other. Which discouerie, if it may be made by you, it shall not only proue profitable vnto you, but it will also purchase perpetuall fame and renowne both to you and our countrey. And thus, not doubting of your willing desires and forwardnesse towards the same, we pray God to blesse you with a lucky beginning, fortunate successe, and happily to end the same. Amen.

As has already been stated, the results of this expedition are not known. We may, therefore, pass to the consideration of the voyage of Arthur Pet and Charles Jackman in the

[1] This supposed interval between Novaya Zemlya and "Willoughby's Land", arose from Willoughby's erroneous estimate of the distance of the coast reached by him from Senyen, which distance, "instead of 160 leagues, would be 230 leagues; an error, however, not much to be wondered at, considering the bad weather the fleet encountered between those places".—*Beechey*, p. 228.

[2] Ere; before.

year 1580. For this undertaking written instructions were in like manner given by the Russia Company, which have also been preserved by Hakluyt.[1] But as these instructions correspond in many respects with those given to Bassendine and his companions, it is here unnecessary to cite more from them than some few passages requiring particular notice.

The Commission from the Russia Company to Pet and Jackman was "for a voyage by them to be made, by God's grace, for search and discoueries of a passage by sea *by Borough's Streights* and the island Vaigats, eastwards to the countries or dominions of the mightie prince, the emperour of Cathay, and in the same unto the cities of Cambalu and Quinsay, or to either of them". And for that purpose they were directed to "saile from this river of Thames to the coast of Finmarke, to the North Cape there, or to the Wardhouse"; and from thence, continued their instructions, "direct your course to haue sight of Willoughbies Land, and from it passe alongst to the Noua Zemla, keeping the same landes alwayes in your sight on your larboord sides (if conueniently you may), to the ende you may discouer whether the same Willoughbies Land be continent and firme land with Noua Zemla or not; notwithstanding we would not haue you to entangle your selues in any bay, or otherwise, so that it might hinder your speedy proceeding to the Island Vaigats.

"*And when you come to Vaigats, we would haue you to get sight of the maine land of Samoeda,* which is ouer against the south part of the same island, and from thence, with God's permission, to *passe eastwards alongst the same coast, keeping it alwayes in your sight* (if conueniently you may) untill you come to the mouth of the riuer Ob: and when you come unto it, passe ouer the said riuers mouth unto the border of land on the east side of the same (without any

[1] Vol. i, pp. 433-5.

stay to bee made for searching inwardly in the same riuer), *and being in sight of the same easterly land, doe you, in Gods name, proceed alongst by it from thence eastwards, keeping the same alwayes on your starboord side in sight,* if you may, and follow the tract of it, whether it incline southerly or northerly (as at times it may do both), untill you come to the country of Cathay, or the dominion of that mightie emperour."[1] But in case they should not be able to reach Cathay, they were directed to attempt to ascend the river Ob; and if they should not succeed in this, they were then to "returne backe *through Boroughs Streights*", and "discouer and trie whether Willoughbies Land ioyne continent with Nona Zembla or not".[2]

In pursuance of these instructions, Pet and Jackman sailed from Harwich on the 31st of May, 1580, in two small barks: namely, the George, of the burthen of forty tons, under the command of the former, with a crew of nine men and a boy, and the William, of twenty tons, commanded by the latter, with a crew of five men and a boy. On June 23rd they reached Wardhuus, which place they left in company on the 1st of the following month. On the next day, however, as the William seemed "to be out of trie and sailed very ill", she "was willing to goe with Kegor", where she might mend her steerage; "whereupon Master Pet, not willing to go into harborough, said to Master Jackman that if he thought himselfe not able to keepe the sea, he should doe as he thought best, and that he in the meane time would beare with Willoughbies Land, for that it was a parcel of our direction, and would meete him *at Veroue Ostroue, or Vaigats*".[3]

The name of Veroue Ostroue, here given to the island of Vaigats, does not occur elsewhere. It is manifestly Russian; though it is difficult to say what is its correct form, and con-

[1] Hakluyt, vol. i, pp. 433-4.
[2] *Ibid.*, p. 435.
[3] *Ibid.*, p. 446.

sequently what its signification. As to the designation by which that island is generally known, Witsen states, though without further explanation, that it was acquired from one Iwan or Ian Waigats;[1] in commenting on which statement, Lütke says that the name should properly be written Waigatsch, the Russian termination *tsch* having been changed by the Dutch into *tz*, in the same way as in Pi*tz*ora for Pe*tsch*ora, etc."[2] The correctness of this criticism is, however, questionable. For, long before the Dutch visited or knew anything of these parts, we find Englishmen,—who certainly had no difficulty in pronouncing the sound *ch (tsch)*, which is common to our language, and who in fact always wrote Pe*ch*ora (Petschora), and not, like the Dutch, Pi*tz*ora,—invariably writing not Vaiga*ch* (Vaiga*tsch*), but Vaiga*ts* or Vayga*tz*. It is therefore reasonable to conclude that Vaigats is the original pronunciation of the name, and that the Russian form is merely a corruption.

But to return to Pet, who after parting from Jackman continued his course eastwards, apparently following in Willoughby's track, till, on the 4th of July, he saw land in latitude 71° 38′ north, being the coast of Novaya Zemlya, somewhere about the South Goose Cape. Thence he coasted along the south-western end of Novaya Zemlya, keeping the same in sight on the larboard side, as instructed to do, but not nearing it, on account of ice and fog. On the 10th of July, he approached the north-western extremity of Vaigatz Island, and landed on a small island near the coast, where he took in wood and water.[4] Here he remained till the 14th, when he got out with difficulty on account of the ice, and "lay along the coast north-west, thinking it to be an island; but finding no end in rowing so long", he "supposed it to be the maine of Noua Zembla", in which, however, he was in error, and thereby missed the entrance into the Sea of

[1] See the note in page 28 of the present volume.
[2] *Ibid.*
[3] Hakluyt. vol. i, p. 446.
[4] *Ibid.*, p. 447.

Kara by Burrough's Strait. He now altered his course, and on the 15th "lay south south-west with a flawne sheete, and so ranne all the same day"; and, after meeting with much more ice, he on the 17th came into the "Bay of Pechora". Thence, again taking an eastward course, he on the 18th had sight of the southern extremity of Vaigatz, and on the following day entered the passage running between that portion of the island and the main land of the Samoede country; to which passage the Dutch, in the voyages which form the subject of the following pages, gave the name of "the Straits of Nassau", and which the Russians call Yugorsky Schar, that is to say, the Ugorian Strait. Nevertheless, if the first European explorer on record be entitled to the credit of his discovery, this entrance into the Sea of Kara ought to bear the name of "Pet's Strait," in like manner as the passage into that sea at the other extremity of Vaigatz Island received the name of "Burrough's Strait".

From the 19th till the 24th of July, Pet endeavoured to make his way eastwards in accordance with his instructions, by keeping "the maine land of Samoeda" always in sight on his starboard side, but was constantly impeded by the ice. At length he was "constrained to put into the ice, to seeke some way to get to the northwards of it, hoping to haue some cleare passage that way, but there was nothing but whole ice."[1]

Meanwhile, Jackman and his crew of five men and a boy, in their frail bark of twenty tons, had gallantly followed after the George, and on the morning of the 25th July the two vessels again joined company, the William being, however, in so disabled a state when she reached her companion, as to require assistance from the latter. The two vessels now "set saile to the northwardes, to seeke if they could finde any way cleare to passe to the eastward; but the

[1] Hakluyt, vol. i, p. 448.

further they went that way, the more and thicker was the ice, so that they coulde goe no further."[1]

At length, seeing the impossibility of advancing either to the east or to the north, on the 28th of July "Master Pet and Master Jackman did conferre together what was best to be done, considering that the windes were good for us, and we not able to passe for ice: they did agree to seeke to the land againe, and so to Vaygatz, and then to conferre further. At 3 in the afternoone, we did warpe from one piece of ice to another, to get from them if it were possible: here were pieces of ice so great that we could not see beyond them out of the toppe."[2]

It was only with the greatest difficulty and peril that they occasionally made their way through the ice, in which for the most part they remained so enclosed "that they could not stirre, labouring onely to defend the yce as it came upon them"; but at length, on the 15th of August, they entred into a cleare sea without yce, whereof they were most glad, and not without cause, and gave God the praise".[3] On the day after, they say, "we were troubled againe with ice, but we made great shift with it: *for we gotte betweene the shoare and it.* This day, at twelue of the clocke, we were thwart of the south-east part of Vaigats, all along which part there was great store of yce, so that we stood in doubt of passage; *yet by mueh adoe we got betwixt the shoare and it.*"[4]

They now bore away to the west, passing by the island of Kolguev (Colgoyeue), on the sands to the south of which both vessels went aground, on August 20th, in latitude 68° 40′ N., according to their calculation. Getting off, they proceeded together on their return voyage; but, only two days afterwards, Pet's vessel parted from the William, and saw her no more.[5]

[1] Hakluyt, vol. i, p. 448.
[2] *Ibid.*, p. 449.
[3] *Ibid.*, p. 450.
[4] *Ibid.*, p. 451.
[5] *Ibid.*

Arthur Pet, in the George, reached home in safety, arriving at Ratcliff on the 26th December following; but "the William, with Charles Jackman, arrived at a port in Norway between Tronden and Rostock in October 1580, and there did winter. And from thence departed againe in Februarie following, and went in company of a ship of the King of Denmarke toward Island; and since that time he was never heard of."[1]

This voyage of Pet and Jackman has been noticed more in detail than might otherwise have been necessary, for the purpose of defending those able seamen from the animadversions of a recent historian, who says: "From the meagre narrative of this voyage it is sufficiently evident that Pet and Jackman were but indifferent navigators, and that they never trusted themselves from the shore and out of shallow water, whenever the ice would suffer them to approach it; a situation of all others, where they might have made themselves certain of being hampered with ice."[2] It will, however, in the first place, have been seen that their express instructions were that they should follow the line of the Siberian coast, keeping it always in sight on their starboard side, which instructions they appear to have obeyed to the utmost of their ability. And, secondly, it was not so much the fixed ice along the coast which impeded their progress, as the immense masses of floating ice from the Polar Basin which had drifted into the Sea of Kara; for, on more than one occasion, it was precisely by getting into the shallow water, "between the shore and the ice", that they were enabled to effect a passage, which in deeper water, where the ice-masses could float, was denied to them. The fact is that it was from no want of either knowledge or skill that they were unsuccessful, but from the like unsurmountable natural causes which, fifteen years later, compelled the Dutch

[1] Barrow, *Chronological History of Voyages into the Arctic Regions*, p. 99.

[2] Hakluyt, vol. i, p. 453.

fleet under Cornelius Nai to turn back from somewhere about the same spot;[1] and, as Captain Beechey justly observes, "to this day the hardy Russians have not been able to survey the eastern side of Nova Zembla; and the ships which passed through the Waigatz Strait have never been able to proceed far, owing to the quantity of ice driven into the Sea of Kara".[2]

Further, when it is considered who these experienced seamen were, it will at once be manifest that under no circumstances ought they to be stigmatised as "indifferent navigators". Arthur Pet was with Richard Chancellor and Stephen Burrough in the Edward Bonaventure, on their first voyage to the Bay of St. Nicholas in 1553, his name standing in the list of "mariners" sixth before that of William Burrough[3] (Stephen's brother). Seven years afterwards, in 1560, he commanded the Jesus, of London, in the service of the Russia Company.[4] And now, twenty years later, in the year 1580, a convincing proof is afforded of the estimation in which he was held, by the interest taken in him and his expedition by several of the most distinguished navigators and cosmographers of his time. For, in addition to his Commission from his employers, in whose service he had been seven-and-twenty years,—whether constantly or not is immaterial,—he received "Instructions and Notes"[5] from "Master William Burrough", Comptroller of the Navy, who had been his messmate seven-and-twenty years before, together with "Certaine briefe aduices giuen by Master Dee",[6] as also "Notes in writing, besides more priuie by mouth, that were giuen by M. Richard Hakluyt, of Eiton, in the countie of Hereford, esquire";[7] and, further, his voy-

[1] See page 64 of the present volume.
[2] *Voyage towards the North Pole*, p. 202.
[3] Hakluyt, vol. i, p. 233.
[4] *Ibid.*, p. 308.
[5] *Ibid.*, p. 435.
[6] *Ibid.*, p. 437.
[7] *Ibid.*, p. 437. These "notes" were also published by Hakluyt in

age was deemed of sufficient importance to form the subject of a letter to Hakluyt himself from the learned Gerard Mercator.[1]

Of Charles Jackman we do not know so much. Yet he, too, had clearly had experience in Arctic exploration, having been "the mate" on board the Ayde, one of the vessels of Frobisher's second expedition, when he was of sufficient importance to give his name to "Jackman's Sound", on the south side of Frobisher's Strait.[2] And it is not without significance that in all the documents above cited, except Mercator's letter to Hakluyt, his name is coupled, without any distinction, with that of so old and experienced a navigator of the Russian Seas as Arthur Pet.

Notwithstanding the failure of Pet and Jackman's undertaking, the Russia Company appear to have in no wise relaxed in their endeavours to effect a passage by sea along the northern coast of the Russian dominions. And that they were, to a considerable extent, successful in their exertions, is proved by the following two documents, which have been preserved to us by Purchas.[3]

NOTES *concerning the discouery of the river of Ob, taken out of a Roll written in the Russian tongue, which was attempted by the meanes of Antonie Marsh, a chiefe Factor for the Moscouie Company of England,* 1584, *with other Notes of the North-east.*

First, he wrote a letter from the citie of Mosco, in the year 7092, after the Russe accompt, which after our accompt was in the yeare 1584, unto foure Russes, that vsed to trade from Colmogro to Pechora and other parts eastward; whose answer was:

his *Divers Voyages touching the Discovery of America*, under the title of "Notes in writing, besides more priuie by mouth, that were giuen *by a gentleman*," etc. See Mr. J. Winter Jones's edition of that work, p. 116.

[1] Hakluyt, vol. i, p. 443.

[2] Rundall, *Narratives of Voyages to the North-West*, pp. 15, 17.

[3] *Pilgrimes*, vol. iii, pp. 804-806.

By writings receiued from thee, as also by reports, wee vnderstand thou wouldest haue us seeke out the mouth of the riuer Ob; which we are content to doe, and thou must giue therefore fiftie rubbles: it is requisite to goe to seeke it out with two *cochimaes* or companies,[1] and each *cochima* must haue ten men; and wee must goe by the riuer Pechora vpwards in the spring, by the side of the ice, as the ice swimmeth in the riuer, which will aske a fortnights time; and then we must fall into Ouson riuer, and fall downe with the streame before we come to Ob, a day and a night in the spring. Then it will hold vs eight dayes to swimme downe the riuer Ob, before we come to the mouth: therefore send vs a man that can write; and assure thy selfe the mouth of Ob is deepe. On the Russe side of Ob soiourne Samoeds, called Vgorskai and Sibierskie Samoeds; and on the other side dwel another kind of Samoeds, called Monganet or Mongaseisky Samoeds. We must passe by fiue castles that stand on the riuer of Ob. The name of the first is Tesnoi-gorodok, which standeth vpon the mouth of the riuer Padou. The second small castle is Nosoro-gorodock, and it standeth hard vpon the side of Ob. The third is called Necheiour-goskoy. The fourth is Charedmada. The fift is Nadesneàa, that is to say, the castle of Comfort or Trust,[2] and it standeth vpon the riuer Ob, lowermost of all the former castles toward the sea.

Heretofore your people haue bin at the said riuer of Obs mouth with a ship, and there was made shipwracke, and your people were slaine by the Samoeds, which thought that they came to rob and subdue them. The trees that grow by the riuer are firres, and a kinde of white, soft, and light firre, which we call *yell*. The bankes on both sides are very high, and the water not swift, but still and deepe. Fish there are in it, as sturgeons, and cheri, and pidle, and nelma, a dainty fish like white salmons, and moucoun, and sigi, and ster-

[1] This may perhaps be an erroneous translation of the Russian word *kotschmare*, which, according to Lütke (p. 71), "is understood at Archangel to mean a three-masted vessel, of the burthen of about 500 poods," or eight tons.

[2] We have here a proof that this document was translated out of Russian into English through either the Dutch or the German language, in which *Trost* does certainly mean "comfort", but never "trust". The translator of De Veer's work commits the like mistake. See page 20 of the present volume.

lidi; but salmons[1] there are none. Not farre distant from the maine, at the mouth of Ob, there is an island,[2] whereon resort many wilde beasts, as white beares, and the morses, and such like. And the Samoeds tell vs, that in the winter season they oftentimes finde there morses teeth. *If you would haue us tranell to seeke out the mouth of Ob by sea, we must goe by the isles of Vaygats and Noua Zembla, and by the land of Matpheoue, that is, by Matthewes Land.* And assure thy selfe, that from Vaygats to the mouth of Ob by sea, is but a small matter to sayle. Written at Pechora, the yeare 7092, the twenty one of February.

Master Marsh *also learned these distances of Places and Ports from Caninos to Ob by sea.*

From Caninos to the Bay of Medemske (which is somewhat to the east of the riuer Pechora) is seuen days sayling. The bay of Medemsky is ouer a day and a halfe sayling. From Medemske Sauorost to Carareca is sixe dayes sayling. From Carska Bay to the farthest side of the riuer Ob is nine dayes saying. The Bay of Carska is from side to side a day and a nights sayling.

He learned another way by Noua Zembla and Matthuschan Yar to Ob more north-eastward. From Caninos to the iland of Colgoieue is a day and a nights sayling. From Colgoieue to Nona Zembla are two dayes sayling. There is a great *osera* or lake vpon Noua Zembla, where wonderfull store of geese and swannes doe breede, and in moulting time cast their feathers, which is about Saint Peters day; and the Russes of Colmogro repaire thither yearely, and our English men venture thither with them seuerall shares in money: they bring home great quantitie of downe-feathers, dried swannes and geese, beares skinnes, and fish, etc. *From Naromske reca or riuer to Mattuschan Yar is sixe dayes sayling.* From Mattuschan Yar to the Perouologi Teupla, that is to say, to the warme passage ouer-land, compassing or sayling round about the sands, is thirteene dayes sayling. And there is upon the sands, at a full sea, seuen fathomes water, and two fathomes at a low water. The occasion of this highing of

[1] These several descriptions of fish are thus identified by Dr. Hamel, in his *Tradescant der aeltere* (St. Petersburg and Leipzig, 1847, 4to.), p. 323. *Acipenser sturio*, *Salmo nasutus* (Tschir), *Salmo pelet* (Pelet?), *Salmo nelma* (Nelma), *Salmo muksun* (Muksun), *Salmo lavaretus* (Sigi), *Acipenser ruthenus*, *Salmo solar*.

[2] *Byeloi ostrov*, or White Island. See *Lütke*, p.68.

the water, is the falling into the sea of the three riuers, and the meeting of the two seas, to wit, the North Sea and the East Sea, which make both high water and great sands. And you must beware that you come not with your shippe near vnto the iland by the riuer Ob.[1] *From Mattuschan Yar to this iland is fiue dayes sayling. Mattushan Yar is in some part fortie versts ouer, and in some parts not past six versts ouer.*

The aforesaid Anthonie Marsh sent one Bodan, his man, a Russe borne, with the aforesaid foure Russes and a yong youth, a Samoed, which was likewise his seruant, vpon the discouery of the riuer of Ob by land, through the countrie of the Samoeds, with good store of commodities to trafficke with the people. And these his seruents made a rich voyage of it, and had bartered with the people about the riuer of Ob for the valew of a thousand rubles in sables and other fine furres. But the emperour hauing intelligence of this discouery, and of the way that Bodan returned home by, by one of his chiefe officers lay in waite for him, apprehended him, and tooke from him the aforesaid thousand markes worth of sables and other merchandises and deliuered them into the emperours treasurie, being sealed vp, and brought the poore fellow Bodan to the citie of Mosco, where he was committed to prison and whipped, and there detained a long while after, but in the end released. Moreouer, the emperours officers asked Anthonie Marsh how he durst presume to deale in any such enterprise. To whom he answered, that, by the priuileges granted to the English nation, no part of the emperours dominions were exempted from the English to trade and trafficke in: with which answere they were not so satisfied, but that they gaue him a great checke, and forfeited all the aforesaid thousand markes worth of goods, charging him not to proceede any further in that action: whereby it seemeth they are very iealous that any Christian should grow acquainted with their neighbours that border to the north-east of their dominions; for that there is some great secret that way, which they would reserue to themselves onely. Thus much I vnderstood by Master Christopher Holmes.

From these documents we gather two very remarkable facts. The first is, that, previously to the year 1584, an English vessel had crossed the Sea of Kara, and penetrated as far eastward as the mouth of the river Ob, where it

[1] Namely, *Byeloi ostrov*.

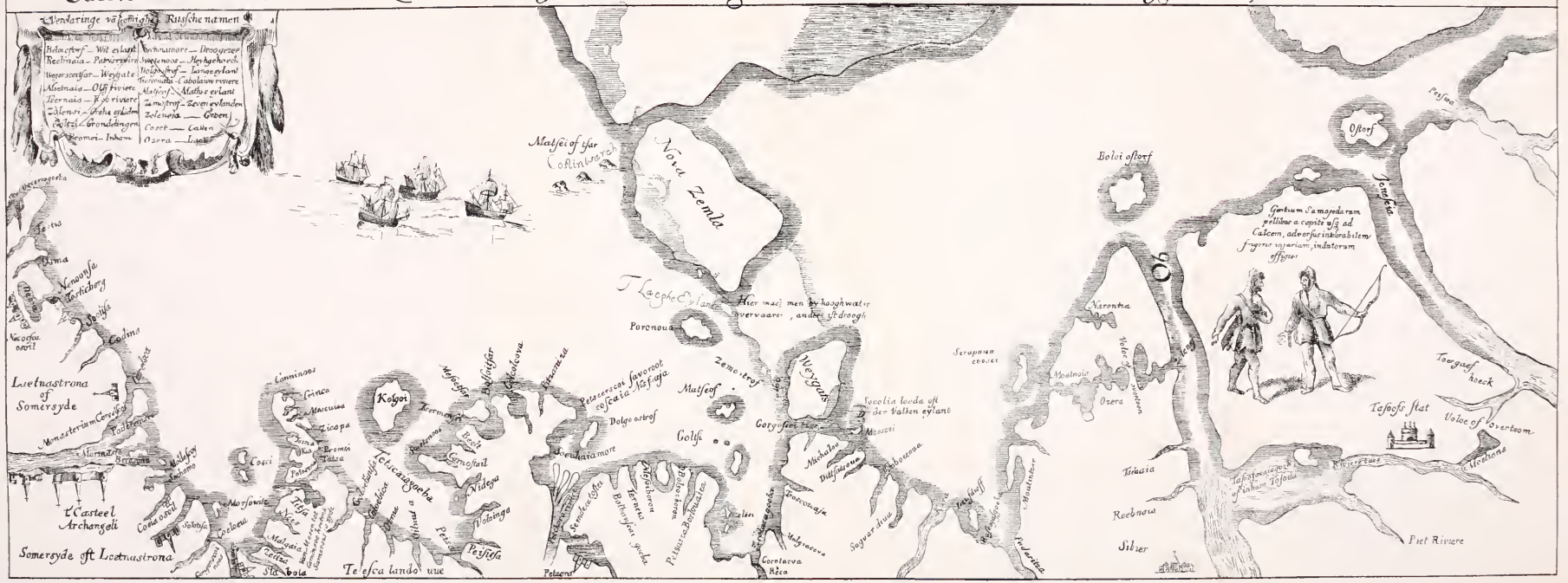
was wrecked and its crew were murdered by the natives. The second is, that, at that time, the best way from the White Sea and the mouth of the Pechora by sea was deemed to be "by the isles of Vaygats and Nouva Zembla, *and by the Land of Matpheouc, that is, by Matthewes Land*"; this being manifestly the same as that which is described as "another way by Noua Zembla *and Mattuschan Yar* to Ob, more north-eastward" than that along the Russian coast, by Kanin Nos, the mouth of the Pechora, and thence through Yugorsky Shar ("Pet's Strait") and across the Gulf of Kara. And there can be no question that we have here a record of the discovery of the entrance into the Sea of Kara by the strait, at present known by the name of Matochkin Shar, in which the Russian pilot Rosmuislov passed the winter of 1768-1769, and through which he penetrated into that sea, though prevented by the ice from proceeding far from the eastern coast of Novaya Zemlya.[1]

The singular description thus given by Marsh of this passage through "Mattuschan Yar", between Novaya Zemlya and "the Land of Matfeov (Matpheouc)", does not appear to have been hitherto noticed by any writer except Dr. Hamel.[1] Unfortunately, that author, through what would seem to be a systematic omission of all particular reference to his sources of information, has rendered his work of little value as an authority; inasmuch as, without having the means of appeal to the originals, it is impossible to discriminate between the facts and opinions gathered by him from others, and the conclusions, or sometimes mere hypotheses, based by himself on such information.

On the present occasion, however, having the original statements of Anthony Marsh before us, we can have no hesitation in availing ourselves of Dr. Hamel's comments on the same, and in agreeing with him[2] that the present name Matochkin Shar appears to be merely a corruption of Mat-

[1] See Lütke, pp. 71 79. [2] *Tradescant der aeltere*, p. 323.

Caerte van 't Noorderste Russen, Samojeden, ende Tingoesen landt: alsoo dat vande Russen afgebetekent, en door Isaac Massa vertaelt is.



yushin Shar; Matyusha itself being the diminutive of the Russian proper-name Matvei, or Matthew, which name was probably that of the first discoverer of this passage. It would also seem that the expression "Mattuschan Yar", made use of by Anthony Marsh, is intended for this Matyushin Shar, and not, as Dr. Hamel supposes,[1] for the coast *(yar?)* lying opposite to Novaya Zemlya; and that the breadth attributed by Marsh to "Mattuschan Yar", of "in some parts forty versts over, and in some parts not past six versts over", is meant to apply to the supposed breadth of the passage itself.

There can, further, be no doubt that Dr. Hamel is right in his conclusion,—indeed, it is self-evident from Marsh's statement,—that towards the close of the sixteenth century, and previously to the time when the Dutch visited those parts, Novaya Zemlya was looked on as an island extending from Burrough's Strait (Karskoi Vorota) as far northwards only as "Mattuschan Yar" (Matyushin Shar): and that the land lying to the north of this latter passage was not deemed to be a part of Novaya Zemlya, but had a distinct designation, namely, Matthew's Land, which in Russian would be Matvyéeva Zemlya,—an expression which corresponds precisely with Marsh's "Land of Matfeov (Matpheoue)".

How this Matvyéeva Zemlya, together with Matyushin Shar, should have been lost from our maps, may be easily explained, though not altogether in the way attempted by Dr. Hamel.[2] The accompanying *fac-simile* of a map drawn by Isaac Massa, and published in 1612 by Hessel Gerard, in a small volume[3] now very rare, contains (as will be seen)

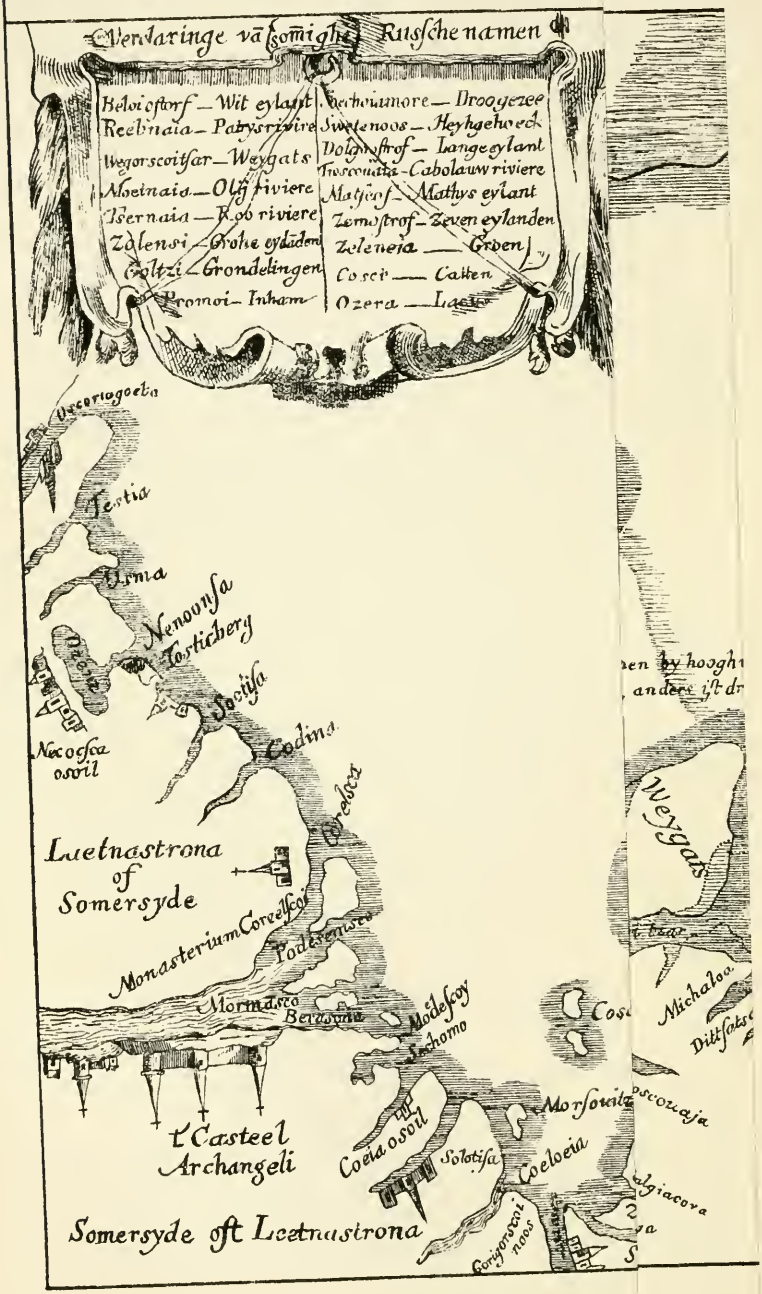
[1] Page 230.

[2] Page 231.

[3] *Descriptio ac Delineatio geographica Detectionis Freti, sive Transitus ad Occasum supra Terras Americanas...recens investigati ab Henrico Hudsono Anglo...unà cum descriptione Terræ Samoiedarum et Tingoesiorum in Tartaria ad Ortum Freti Waygats sitæ*, etc. Amsterodami, ex officina Hesselij Gerardi. anno 1612. Small 4to.

The full title of this work is given by Camus, in his *Mémoire sur la*

Caerte van 't Noom la



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a delineation of Novaya Zemlya, there shown as an island of not large extent, and the surrounding regions. The strongly marked entire line along the western side of Novaya Zemlya, is that of the coast as furnished to Massa by his Russian authorities: the faint dotted line is that of the coast as corrected by himself or Gerard from Dutch sources of information. The proper names, as written in strong and faint characters respectively, indicate, in like manner, the several sources from which such names were derived. In this map a broad channel is laid down between the island of Novaya Zemlya and a *terra innominata* to the north of it, to which channel is given the name of "Matsei of tsar", which was evidently intended for "Mat*f*eiof tsar", which again must be taken to have been written instead of "Matfeiof tsar", through a mere clerical error.[1] The faint dotted line along the west coast of Novaya Zemlya shows that it had been carefully and (considering the time when it was drawn) very accurately corrected; for we there see plainly laid down the Mezhdusharsky Ostrov and the two inlets — Kostin Shar and Podryesov Shar — between which

Collection des grands et petits Voyages, p. 254, in which, however, he has "transitus ad *Oceanum*", instead of "transitus ad *Occasum*".

[1] In the tenth part of De Bry's *India Orientalis*, which was published at Frankfort in 1613, an absurd blunder occurs with respect to this name. Massa's map of 1612 is there reproduced, somewhat reduced in size, and with the Dutch names of places, etc., Latinized. And the *of* in "Matsei of tsar" being imagined to be the Dutch disjunctive conjunction (Engl. *or*), that name is accordingly *done* into Latin, and appears as "Matsei *vel* tsar" In this map "Costintsarch" is not inserted.

It may not be uninteresting to add, that Gerard's work, together with its maps, is inserted bodily in De Bry's Collection, and on the title-page, which alone is altered, are the words, "Auctore M. Gotardo Arthusio, Dantiscano, tabulas in æs artificiosè incisas addente Johanne-Theodoro de Bry." The artist has, indeed, the conscience to give Isaac Massa the credit of his map; but the name of the author of the work, "Hesselius Gerardus, Assumensis, philogeographicus," signed at the foot of his *Prolegomena*, is left out, and there is nothing whatever to show that the entire work is not the original composition of G. Arthus.

that island lies, and from which it derives its appellation.[1]

Had the name Kostin Shar, in any of its chameleon forms,[2] been retained in its proper place, at the same time that the new name Matfeiof tsar was introduced to designate the more northerly channel,—and the map constructed by Gerrit de Veer from William Barents's observations, does not warrant the former's being carried much higher up than the 71st parallel,—there would most probably have been no occasion to notice this grave error. But the passage between Novaya Zemlya (Proper) and Matvyéeva Zemlya not having been observed by Barents and his companions, and De Veer having in his journal expressed the opinion that "Constinsarck" goes "through to the Tartarian Sea",[3] the corrector of Massa's map was led to suppose that this passage must be the same as the "Matfeiof tsar" of the Russians, and he accordingly placed over the latter the name "Costint sarch" in faint letters. That in subsequent maps the former name should have been omitted, and the latter alone retained, is only natural: it is the usual progress of error. Accordingly, in Gerard's map of Russia, dedicated to the emperor Michael Fedorowich in 1614,[4] we find "Costint sarch" made to extend right across and through the land from west to east, its latitude being, however, brought down to nearly the same as in Gerrit de Veer's map, from which the western coast-line of Novaya Zemlya is, in

[1] See the note in page 31 of the present volume.

[2] See page 30, note 4, and page 202, notes 6 and 7. Yet one more form has to be added to the list. It is *Casting Sarch*, which is employed by Captain Beechey in page 277 of his work already cited.

[3] See page 222 of the present work.

[4] "Tabula Russiæ ex autographo quod delineandum curavit Feodor filius Tsaris Boris desumpta, et ad fluvios Dwinam, Zuchanum, aliaque loca, quantum ex tabulis et notitiis ad nos delatis fieri potuit, amplificata ...ab Hesselo Gerardo, M.DC. XIIII" (the last I was subsequently added). In Blaeu's *Grand Atlas*, vol. ii, 1667.

general, taken, while the more northerly passage is altogether lost sight of.

Still, the existence of this latter passage continued to be known more than a century later. For, in the year 1705, Witsen published in the second volume of his *Noord en Oost Tartarye*, a rough and, for the most part, very incorrect map of the Samoede country, obtained by him from Theunis (Antonis) Ys, the master of a trading vessel, who had visited Novaya Zemlya; in which map the southern portion of that country is represented as an island, cut off from the northern and far larger portion by a broad channel, running from north-west to south-east, and bearing the name of "Matiskin jar, of Mathys-stroom"; with respect to which channel Witsen remarks,[1] that "it is a passage and thoroughfare, and not an inlet or river".

Notwithstanding the length of time during which the name has been lost, there does not appear to be any good reason why the original and correct designation of Matthew's Strait, Matvyéeva Shar ("Matfeiof tsar"), or Matyushin Shar, should not be restored to the channel between the two islands, instead of its continuing to bear the modern corrupted form of the latter name, Matochkin Shar.

It likewise seems only right that the name Matthew's Land (the "Land of Matpheoue") or Matvyéeva Zemlya, should not be lost from our maps; and it is therefore proposed to appropriate that designation to the small island extending from Matyushin Shar ("Matochkin Shar") northwards as far as the channel, in about 74° N. lat., running across the land from Cross Bay to Rosmuislov's "Unknown Bay".

As to the name Novaya Zemlya, there can be no doubt that it ought still to continue the generic appellation of the entire series of islands, of which the country usually known by that name is now found to consist. But, at the same

[1] Page 952.

time, as it is highly expedient that each of those islands should possess some distinctive specific designation, there is a propriety in restricting the title of Novaya Zemlya (Proper), as it appears in the map of Isaac Massa and Theunis Ys, to the southernmost island of the series, lying between the Kara Gate or Burrough's Strait to the south and Matyushin Shar or Matthew's Strait to the north.

The establishment of the English in the White Sea, and their explorations to the eastwards, soon induced others to become their competitors; and of these it is not unnatural that the Russians themselves should have been among the first. Accordingly, we find that a short time previously to the year 1581, "two famous men", named Yacovius and Unekius—which, as Lütke observes,[1] are manifestly the Latinised forms of the Russian names Yakov and Anikyi—employed a Swedish shipwright to build for them two ships in the river Dwina, and then sent one Alferius, by birth a Netherlander ("natione Belga"), to Antwerp to engage pilots and mariners, with a view to their employment on board those ships in discoveries towards the north-east. This Alferius—or Oliver, as Hakluyt translates the name—was the bearer of a letter from John Balak to Gerard Mercator, which letter, written in Latin, was published by Hakluyt in his *Principal Navigations*,[2] together with an English translation.

On account of the very curious matter bearing on our subject which this letter contains, it is thought advisable to reprint it here in its English form, and also to give the original Latin in the Appendix,[3] for the convenience of reference.

[1] Page 93.
[2] Vol. i, pp. 509-512.
[3] See page 261.

To *the famous and renowned Gerardus Mercator, his reuerend and singular friend, at Duisbury in Clueland, these be deliuered.*

Calling to remembrance (most deare friend) what exceeding delight you tooke, at our being together, in reading the geographicall writings of Homer, Strabo, Aristotle, Plinie, Dion, and the rest, I reioyced not a little that I happened vpon such a messenger as the bearer of these presents (whom I do especially recommend vnto you), who arriued lately here at Arusburg, upon the riuer of Osella. This maus experience (as I am of opinion) will greatly auaile you to the knowledge of a certaine matter, which hath bene by you so vehemently desired and so curiously laboured for, and concerning the which the late cosmographers do hold such varietie of opinions: namely, of the discouerie of the huge promontorie of Tabin, and of the famous and rich countreys subiect unto the emperor of Cathay, and that by the northeast Ocean Sea. The man is called Alferius,[1] being by birth a Netherlander, who, for certaine yeeres, liued captiue in the dominions of Russia, vnder two famous men, Yacouius and Vnekius, by whom he was sent to Antwerp, to procure skilfull pilots and mariners (by propounding liberall rewards), to go vnto the two famous personages aforesayd, which two had set a Sweden shipwright on worke to build two ships for the same discouerie, vpon the riuer of Dwina. The passage vnto Cathay by the northeast (as he declareth the matter, albeit without arte, yet very aptly, as you may well perceiue, which I request you diligently to consider), is, without doubt, very short and easie. This very man himselfe hath trauelled to the riuer of Ob, both by land, through the countreys of the Samoeds and of Sibier, and also by sea, aloug the coast of the riuer Pechora, eastward. Being encouraged by this his experience, he is fully resolued with himselfe to conduct a barke laden with merchandize (the keele whereof hee will not haue to drawe ouer much water) to the Baie of Saint Nicholas, in Russia, being furnished with all things expedient for such a discouerie, and with a new supply of victuals at his arriuall there; and also to hire into his companie certaine Russes best knowen vnto himselfe, who can perfectly speake the Samoeds language, and are acquainted with the riuer of Ob, as hauing frequented those places yeere by yeere.

[1] Or Oliuer.—*Note by Hakluyt.*

Whereupon, about the ende of May, hee is determined to saile from the Baie of S. Nicholas eastward, by the maine of Ioughoria, and so to the easterly parts of Pechora, to the island which is called Dolgoia. And here also hee is purposed to obserue the latitudes, to suruey and describe the countrey, to sound the depth of the sea, and to note the distances of places, where and so oft as occasion shall be offered. And forasmuch as the Baie of Pechora is a most conuenient place both for harbour and victuall, as well in their going foorth as in their returne home, in regard of ice and tempest, he is determined to bestow a day in sounding the flats, and in searching out the best enterance for ships: in which place, heretofore, he found the water to be but fiue foote deepe, howbeit he doubteth not but that there are deeper chanels: and then he intendeth to proceed on along those coasts for the space of three or foure leagues, leauing the island called Vaigats almost in the middle way betweene Vgoria and Noua Zembla: then also to passe by a certaine baie betweene Vaigats and Ob, trending southerly into the land of Vgoria, whereinto fall two small riuers, called Marmesia and Carah,[1] vpon the which riuers doe inhabite an other barbarous and sauage nation of the Samoeds. He found many flats in that tract of land, and many cataracts or ouerfals of water, yet such as hee was able to saile by. When hee shall come to the riuer of Ob, which riuer (as the Samoeds report) hath seuentie mouthes, which, by reason of the huge breadth thereof, containing many and great islands, which are inhabited with sundry sortes of people, no man scarcely can well discouer; because he will not spend too much time, he purposeth to search three or foure, at the most, of the mouthes thereof, those chiefly which shall be thought most commodious by the aduise of the inhabitants, of whom hee meaneth to haue certaine with him in his voyage, and meaneth to employ three or foure boates of that countrey in search of these mouthes, as neere as possibly he can to the shore, which, within three dayes iourney of the sea, is inhabited, that he may learne where the riuer is best nauigable. If it so fall out that he may sayle vp the riuer Ob against the streame, and mount up to that place which heretofore, accompanied with certaine of his friends, he passed vnto by land through the countrey of Siberia, which is about twelue dayes iourney from the sea, where the riuer Ob falleth into the sea, which place is in the

[1] Or Naramsay and Cara Reca.—*Note by Hakluyt.* And see page lxxiii, *ante*.

continent neere the riuer Ob, and is called Yaks Olgush, borowing his name from that mightie riuer which falleth into the riuer Ob; then, doubtlesse, hee would conceive full hope that hee had passed the greatest difficulties: for the people dwelling there about report, which were three dayes sayling onely from that place beyond the riuer Ob, whereby the bredth thereof may be gathered (which is a rare matter there, because that many rowing with their boates of leather one dayes iourney onely from the shore, haue bene cast away in tempest, hauing no skill to guide themselves neither by sunne nor starre), that they haue seene great vessels, laden with rich and precious merchandize, brought downe that great riuer by black or swart people. They call that riuer Ardoh, which falleth into the lake of Kittay, which they call Paraha,[1] whereupon bordereth that mightie and large nation which they call Carrah Colmak, which is none other than the nation of Cathay.[2] There, if neede require, he may fitly winter and refresh himselfe and his, and seeke all things which he shall stand in need of; which, if it so fall out, he doubteth not but in the meane while he shall be much furthered in searching and learning out many things in that place. Howbeit, he hopeth that hee shall reach to Cathaya that very sommer, unlesse he be hindered by great abundance of ice at the mouth of the riuer of Ob, which is sometimes more, and sometimes lesse. If it so fall out, hee then purposeth to returne to Pechora, and there to winter; or if he cannot doe so neither, then hee meaneth to returne to the riuer of Dwina, whither he will reach in good time enough, and so the next spring following to proceed on his voyage. One thing in due place I forgate before.

The people which dwell at that place called Yaks Olgush, affirme that they haue heard their forefathers say that they have heard most sweete harmonie of bels[3] in the lake of Kitthay, and that they haue seene therein stately and large buildings: and when they make mention of the people named Carrah Colmak (this countrey is Cathay), they fetch deepe sighes, and holding vp their hands, they looke vp to heaven, signifying, as it were, and declaring the notable glory and

[1] These are seemingly the river Yenisei and lake Baikal.

[2] On the subject of Cathay, see Hakluyt's *Divers Voyages*, etc., by J. Winter Jones, pp. 24, 117; and Major's *Notes upon Russia*, vol. ii, pp. 42, 187. Carrah Colmak would appear to be intended for Black Kalmucks.

[3] Is not this a sign of the existence there of the Tibetan religion?

magnificence of that nation. I would this Oliuer were better seene in cosmographie; it would greatly further his experience, which doubtlesse is very great. Most deare friend, I omit many things, and I wish you should heare the man himselfe, which promised me faithfully that he would visite you in his way at Duisburg; for he desireth to conferre with you, and doubtlesse you shall very much further the man. He seemeth sufficiently furnished with money and friends, wherein, and in other offices of curtesie, I offered him my furtherance, if it had pleased him to haue vsed me. The Lord prosper the mans desires and forwardnesse, blesse his good beginnings, further his proceedings, and grant vnto him most happy issue. Fare you well, good sir and my singular friend. From Arusburgh, vpon the river of Ossella, the 20 of February, 1581.

Yours wholy at commandement,
JOHN BALAK.

It is not known what success attended this Alferius or Oliver in his scheme, or what subsequently became of him; unless, indeed, it be assumed that he is the Oliver Brunel (or Bunel), concerning whom several unconnected notices are met with, and with respect to whom various conflicting opinions have been entertained. The early history of the discovery of Novaya Zemlya would hardly be complete were these notices and opinions passed over in silence.

The first mention made of this individual is by Gerrit de Veer, when speaking, in page 30 of the present work, of "a great creeke, which William Barents iudged to be the place where Oliuer Brunel had been before, called Costincsarch".

The next is Henry Hudson, who, on his second voyage to discover a passage to the East Indies by the north-east, in 1608, having entered into this same creek, in the hope of its affording him a way through into the Sea of Kara, expresses himself as follows:—"This place vpon Noua Zembla is another then that which the Hollanders call Costing Sarch, discouered by Oliuer Brownell: and William Barentsons obseruation doth witnesse the same. It is layd in plot by the Hollanders out of his true place too farre north; to

what end I know not, unlesse to make it hold course with the compasse, not respecting the variation."[1]

In this, however, Hudson was mistaken. The creek into which he entered was really Kostin Shar; and his error in supposing it to be another "than that which the Hollanders call Costing Sarch", arose from the circumstance that in the Dutch maps that name had been removed northwards to Matfeiov-tsar (Matvyéeva Shar) or Matyushin Shar, and made to supersede the original name. The whole of Hudson's account of his visit to Novaya Zemlya is of so interesting a character, that it is deemed deserving of a place in the Appendix to the present work,[2] especially as it has hitherto been either overlooked or else made use of to very little good purpose.

In 1611, three years after Hudson's visit to Novaya Zemlya, Josiah Logan went on a voyage to the Pechora, and on the 27th of August of that year we find the following entry in his journal, which, like that of Hudson, is published by Purchas:[3]—"We came to an iland called Mezyou Sharry, being sixtie versts to the eastwards of Suatinose, and it is about ten versts in length and two versts broad. At the east end thereof Oliuer Brunell was carried into harbour by a Russe, where he was land-locked, hauing the iland on the one side and the mayne on the other." It is here manifest that Logan's "Mezyou Sharry" Island is the Mezhdusharsky Ostrov, or "the island between the two straits", of the Russians.[4]

From these several statements of three seamen, who visited Kostin Shar at different periods between the years 1594 and 1611, the only facts to be elicited are, that, at some time previous to the former date, this strait was first discovered by some well-known individual, named Oliver Brunel, who was there exposed to some danger or difficulty,

[1] *Purchas*, vol. iii, p. 579.
[2] See page 265.
[3] Vol. iii, p. 545.
[4] See page lxxxviii, *ante*.

from which he was rescued by the crew of a Russian vessel. That he was, however, subsequently lost at the mouth of the river Pechora is made known to us in the work of Hessel Gerard already referred to.[1]

As this work of Gerard is but little known, the commencement of the author's Preface *(Prolegomena)* shall be reprinted here, both on account of its clearing up the history of Oliver Brunel, and also because it shows the important bearing which his adventure had on the subsequent voyages of the Dutch, which form the subject of the following pages.

"Lucri et utilitatis spes animos hominum nunquam non excitavit ad peregrinas regiones nationesque lustrandas. Ita pretiosæ illæ, nobis a mercatoribus Russis allatæ pelles, mercatores nostrates inflammarunt acri quadam cupidine incognitas nobis ipsorum terras, si fieri posset, peragrandi. Profuit ipsis quadam tenus hac in parte iter quoddam à Russis conscriptum, Moscovia Colmogroviam, atque inde Petzoram (ubi incolæ anno Christi 1518 Christianam fidem amplexi sunt) hinc porro ad fluvium Obi, pauloque ulterius ducens. Quod quidem plurima falsa veris admiscet, puta de Slatibaba anu illa (ut fertur) aurea, eiusque filijs, necnon monstruosis illis trans ipsum Obi hominibus.[2] Transtulit verò descriptionem hanc Russicam, eamque suis de regionibus Muscovitarum libris inseruit Sigismundus ab Herberstein, Imperatoris Maximiliani orator. Ediditque posteà tabulam Russiæ Antonius quidam Wiedus, adjutus ab Iohanne à Latski, Principe quondam Russo, et ob tumultus post obitum Magni Ducis Iohannis Basilij in Russia excitatos, in Poloniam profugo. Quæ tabula I. cuidam Copero, Senatori Gedanensi, dicata, Russicisque et Latinis descriptionibus aucta, in lucem prodiit apud Wildam anno Christi 1555.[3] Aliam quoque Russiæ tabulam ediderunt post mo-

[1] Page lxxxvii.

[2] The members of the Hakluyt Society are referred to their last published volume, namely, the second of Mr. Major's translation of Herberstein's celebrated work (*Notes upon Russia*, vol. ii, pp. 40, 41), for this description of the "golden old woman" and the other wonderful inhabitants of the regions beyond the Ob.

[3] F. Adelung, in his memoir "über die aeltern ausländischen Karten von Russland, bis 1700", in Baer and Helmersen's *Beiträge zur Kenntniss*

dum Angli, qui in tractu illo negotiati fuerunt. Atque hæ quidam tabulæ et qualescumque descriptiones, quæque præterea de regionibus hisce comperta sunt, *elicuerunt Oliverium quendam Bunellum, domo Bruxella, uti consenso navigio Euchusano, animum induxerit eò sese conferre. Vbi aliquandiu vagatus, et pellium pretiosarum, vitri Russici, crystalliquc montani, ut vocant, adfatim nactus, omnium opum suarum scaphæ commissarum in undis fluvij Petzoræ triste fecit naufragium.* Quæ tum Anglorum, *tum hujus Bunelli,* qui et Costinsarcam Novæ Zemlæ lustraverat, navigationes, cum et Batavis nostris, opum Chinensium Cathaicarumque odore allectis, animum accendissent, nobiles et prepotentes Provinciarum Fœderatarum Ordines, duas naves, ductore Iohanne Hugonis à Linschot, versus fretum quod vulgò Weygats, totidemque ductore Guilielmo Bernardi, suasu D. Petri Plancij, recto supra Novam Zemblam cursu sententionem versus ituras, destinarunt."

Oliver Brunel, or "Bunel", was therefore no Englishman, but a native of Brussels; and if the particulars thus recorded of him and of the motives of his enterprise be correctly stated, he would scarcely seem to be the Alferius of Balak's letter to Mercator. Still, the point cannot be looked on as absolutely decided. One further remark is necessary with respect to the spelling of his name. On the one hand, it will be seen that, according to De Veer and Logan, it is "Brunel" or "Brunell", while Hudson makes it to be "Brownell", which latter may, however, be regarded as merely a *broad* pronunciation of the word, or perhaps an attempt to give it a vernacular and significant form;—a process with respect to proper names not unusual among seamen of all nations. On the other hand, Gerard writes

des Russischen Reiches, vol. iv (1841), p. 18, when describing this map, says that it must have been very rare, since few appear to have been acquainted with it except Ortelius and Witsen; referring to the latter writer's preface to his *Noord en Oost Tartarye*, where mention is made of it. But from a comparison of Gerard's description of this map with that of Witsen, it is manifest that the latter merely repeated the former's statement respecting it; so that there is no reason for supposing it to have been seen even by Witsen.

"Bunel". But this form cannot be allowed to stand in opposition to the conjoint authority of the three seamen, all writing separately and without concert; and we may quite reasonably conjecture the *r* to have been left out by Gerard, through some clerical or typographical error.

Gerard's work must have come to the knowledge of Purchas soon after its publication; for, in the year 1625, it is referred to be the latter[1] as his authority for the following statement:—"The Dutch themselues[2] write that after the English Russian trade, one Oliuer Bunell, moued with hope of gaine, went from Enckhuysen to Pechora, where he lost all by shipwracke, hauing discouered Costinsarca in Nona Zemla. These nauigations of the English, and that of Bunell, and the hopes of China and Cathay, caused the States Generall to send forth two shippes, vnder the command of Hugo Linschoten, to the Streights of Wey-gates, and two others, vnder William Bernards, by the perswasion of P. Plancius, to goe right northwards from Nona Zemla."

Nearly a century later, Witsen, in his oft-cited work,[3] writes as follows:—"Het zijn veele jaren geleden, en lange voor Willem Barents-zoons reis, dat eenen Olivier Bunel, met een scheepje van Enkhuizen uitgevaren, deze rivier [Petsora] heeft bezocht, daer hy veel pelterye, Rusch glas, en bergkristal vergaderd hadde; doch is aldaer komen te blyven." Witsen does not cite any authority for this state-

[1] *Pilgrimes*, vol. iii, p. 473.

[2] Prolegomena ad Hudsoni Detect., edit. Amstelodami per Hes. Gerard, 1611.—*Marginal note by Purchas.*

The date here attributed to Gerard's work must be a misprint, as Camus makes no mention of any editions except that of 1612 and one of the following year. In this second edition of 1613, the far greater part of the *Prolegomena* is omitted, and what little remains is much altered Camus remarks (p. 255), "l'avertissement est absolument changé; il est beaucoup plus court". The title of the work is also slightly varied.

[3] Page 946.

ment; but it bears internal evidence of having been taken from Gerard, whose work we know he had before him. That both he and Purchas should have written the name "Bunel", and not "Brunel", is perfectly natural, and adds nothing to the weight of evidence in favour of the former spelling.

The next writer to be mentioned is Johann Reinhold Forster, who, in his *Voyages and Discoveries in the North*,[1] after referring to De Veer's statement respecting Oliver Brunel,—whom, however, he styles "Bennel", on what authority it is impossible to say—adds in a note:—"It is manifest that the navigators mentioned here, who had been in Nova Zembla previous to Barentz's arrival there, were Englishmen; for the name Oliver Bennel is entirely English, and the name of the inlet, which Barentz calls *Constint Sarch*, can hardly have been any other than *Constant Search*; but in which of the known voyages of the English into these parts this place was thus named, or whether Oliver Bennel made a voyage for the sole purpose of making discoveries, or was cast away here in his way to other regions, cannot easily be determined, for want of proper information on the subject."

The absurdity of Forster's derivation of the name *Kostin Shar* is manifest from the explanation of it given in page 30 (note 4) of the present work. And as to the allegation that the name Oliver *Bennel* is entirely English", it could only have been made by a foreigner. On the contrary, it may be asserted that such a name as "Bennel" is altogether un-English; and were it not for the cosmopolitan character of our English surnames, it might—had it really been that of the individual in question—in itself be fairly taken as evidence that he was *not* an Englishman. With much more reason might we, at the present day, claim "Brunel" as an English name. Probably Forster had in

[1] Engl. edit., p. 415.

his mind the "entirely English" name of Stephen Bennet, the well-known walrus-hunter on Bear (Cherie) Island.

But the confusion as to Oliver Brunel does not rest here. Sir John Barrow, in his work already cited,[1] says:—"The Dutch themselves admit, that an *Englishman* of the name of Brunell or Brownell, 'moved with the hope of gain, went from Enkhuysen to Pechora', where he lost all by shipwreck, after he had been on the coast of Nova Zembla, and given the name of Costin-sarca (qu. *Coasting-search* ?) to a bay situated in about 71½°." And in another place,[2] the same writer speaks of Oliver Brunel as "an Englishman, of whom a vague mention only is made by the Dutch."

With the statements of the various writers who preceded Barrow before us, we can see at a glance, though no authorities are cited by him, that he took that of Purchas as his basis, modifying it by means of those of Hudson, Logan, and Forster. It is to be regretted that he did not refer to the original Dutch authority cited by Purchas.

The last modern writer who treats of Oliver Brunel is Dr. Hamel, who, assuming him to be the Alferius of Balak, makes him, in his work already cited,[3] the subject of an hypothetical biographical memoir, beginning with the words, "Ich finde es wahrscheinlich", but without seeming to be aware of what Gerard says respecting his hero, except so far only as it is repeated by Witsen. By this writer, therefore, no additional light is thrown on the subject now under consideration; and, in fact, it is to the original authority, after all, that we must revert for the only information that is really available and useful.

From this authority, then, we learn that Oliver Brunel, a native of Brussels, went in a vessel belonging to the town

[1] *Chronological History*, etc., p. 159. [2] *Ibid.*, p. 141, *note*.
[3] *Tradescant*, etc., pp. 232-235.

of Enkhuysen on a trading voyage into the Russian seas, where, after collecting a valuable cargo, he was lost; and that his enterprise (though unsuccessful), together with those of the English in the same quarter, induced the Dutch to set on foot the memorable expeditions which form the subject of the following pages. If this person was really the Alferius who was recommended by Balak to Mercator in the year 1581, he must subsequently have been engaged in the Russian trade for several years before his unlucky end; or else Gerard, writing in 1612, would surely not have named him as an immediate cause of an undertaking which was not projected till 1593.

It is not, however, to be imagined that the Netherlanders —we can scarcely speak of the "Dutch" at the earliest period to which we are now adverting—had no previous connexion with the northern coasts of Russia, though it is true that that connexion was then but of recent date. For, as is stated by Edge, the English Russia Company having "made their first discoverie in the yeere 1553, there was neuer heard of any Netherlander that frequented those seas vntil the yeere 1578. At which time they first began to come to Cola, and within a yeere or two after, one Iohn de Whale [de Walle], a Netherlander, came to the Bay of Saint Nicholas, being drawne thither by the perswasion of some English, for their better meane of interloping; which was the first man of that nation that euer was seene there."[1] It was this same John de Walle, who was afterwards present at the coronation of the Emperor Fedor Ivanovich, at Moscow, on the 10th of June, 1584, when he had a dispute with Jerome Horsey, the English ambassador, as to precedency, which was decided by the emperor in favour of the latter. He is described by Horsey as "a famous merchant of Netherland, being newly come to

[1] Purchas, vol. iii, p. 464.

Mosco, who gaue himselfe out to be the king of Spaines subiect."[1]

It is unnecessary, for the consideration of the subject before us, to enter into any details respecting the commercial and political relations with Russia of the Netherlanders generally, in the first instance, and eventually of the natives of the United Provinces—commonly, though not very correctly, called *the Dutch*—in particular. It is sufficient to remark, that after their first entrance into the White Sea, they soon became powerful rivals of the English in the trade with Russia, and that it was also not long before their attention was directed to the extension of their commerce to the eastward of that country, and to the endeavour to reach China and the Indian Seas by a passage to the north-east.

Among the earliest and most eminent Dutch merchants trading to the White Sea, was Balthazar Moucheron, of the town of Middelburg, in Zeelandt. He it was, who, in the year 1593, in conjunction with Jacob Valck, treasurer of the same town, and Dr. Francis Maelson, of Enkhuysen, syndic of West Friesland, conceived the project of fitting out two fly-boats (*vlyboots*), each of between fifty and sixty lasts, or about one hundred tons, burthen, armed and provisioned for eight months, being one from each of those towns, to attempt a voyage to China and India by the way of the Northern Ocean. In this enterprise they were assisted by the courts of admiralty of those two provinces, having first obtained the necessary permission from the higher authorities.[2]

The two vessels thus fitted up were the Swan (*Swane*),[3]

[1] Hakluyt, vol. i, p. 468.

[2] Linschoten, *Voyagie, ofte Schip-vaert, van hy Norden om*, etc., fol. 3.

[3] Bennet and Van Wijk, in *Nieuwe Verhandelingen van het Provinciaal Utrechtsche Genootschap*, etc., vol. v, part 6 (1830), p. 26, call this vessel the Swallow *(Zwaluw)*.

of Ter Veere, in Zeelandt, under the command of Cornelis Corneliszoon Nai (or Nay), a burgher of Enkhuysen, who had for some years been a pilot or master of a merchantman in the Russian trade, in Moucheron's service, and was well acquainted with the northern coasts of Europe; having with him, as under-pilot or mate, Pieter Dirckszoon Strickbolle, also of Enkhuysen, and, like Nai, in the service of Moucheron. The other vessel was the Mercury (*Mercurius*), of Enkhuysen, under the command of Brant Ysbrantszoon, otherwise Brant Tetgales, a skilful and experienced seaman, with Claes Corneliszoon as his mate or under-pilot; both being likewise natives of Enkhuysen. As supercargo and interpreter on board the Swan went François de la Dale, a relative of Moucheron, who had resided several years in Russia, and as additional interpreter, "Meester" Christoffel Splindler, a Slavonian by birth, who had studied in the university of Leyden; while on board the Mercury the supercargo was John Hugh van Linschoten,[1] who was likewise engaged to keep a journal of their proceedings.

This movement on the part of the merchants of Middelburg and Enkhuysen had the effect of inducing those of Amsterdam to desire to participate in the enterprise, or, it should rather be said, to undertake one on their own account, having the same general object in view, but adopting a somewhat different mode of carrying it out. Instead of attempting a way to China by passing between Novaya Zemlya and the Russian continent, the Amsterdammers, at the instance of the celebrated cosmographer and astronomer, Peter Plancius, decided on sending their vessel round to the north of Novaya Zemlya, as offering a far easier and preferable route. This difference of opinion between the promoters of the two parts of the first expedition must be borne in mind, as explaining several circumstances which,

[1] Linschoten, fol. 3.

in the course of our subsequent narrative, will have to be adverted to. A third vessel was accordingly fitted out by the merchants of Amsterdam, aided by the court of admiralty there. It was of the same size and character as the other two, and like Tetgales's vessel was named the Mercury (*Mercurius*);[1] its command being entrusted to William Barents, who took with him also a fishing-boat belonging to Ter Schelling.[3]

Before proceeding further, a few words must be said respecting the individual whose name has become inseparably associated with the three memorable expeditions, of which the first is now under consideration.

Willem Barentszoon—that is to say, William, the son of Barent or Bernard—was a native of Ter Schelling, an island belonging to the province of Friesland, and lying to the north-east of Vlieland or 'tVlie. He was also a burgher of Amsterdam. Of his family and early life no particulars have been handed down to us. But that he was not of any considerable family is manifest from his having, like most of his countrymen in the lower, or even the middle ranks of life, no other surname than the patronymic, Barents-zoon. He possessed, however, a good, if not a learned education, as is proved by the translation made by him from the High Dutch into his native tongue of the "Treatise of Iver Boty, a Gronlander," which together with a note written by him on the tides in the Sea of Kara, was found by Purchas

[1] J. R. Forster (Engl. edit., p. 411) says that the Amsterdam vessel was called "the Boot, or Messenger". The original German work (Frankfort, 1784, 8vo) is not in the British Museum, nor is it known whether a copy of it is to be found in this country; so that there are no means of reference. But it may be suspected that there is some confusion here between *Boot*, "a boat", and *Bote*, "a messenger". Most modern writers have followed Forster in calling Barents's vessel the Messenger. This name, translated into Russian by Lütke, and then rendered back into German by Erman (p. 17), has become *der Gesandte*, the Envoy or Ambassador!

[2] Bennett and Van Wijk, p. 26.

[3] Linschoten, fol. 3.

"amongst Master Hakluyt's paper," and preserved by him, and which, following that laborious collector's example, we have "thought good to adde hither for Barents or Barentsons sake."[1] He appears also to have written the narrative of the first voyage, which was published by Gerrit de Veer, and of which a translation is given in the present volume. Nothing to that effect is stated by De Veer; but as the latter did not go on that voyage, he must necessarily have obtained the particulars of it from some one who did, and from Linschoten's statement[2] it may be inferred that this was Barents himself.

But whatever may have been Barents's general education, it is unquestionable that he was a man of considerable capacity and talent, and that as a seaman he was possessed of far more than ordinary acquirements. By Linschoten he is described as having great knowledge of the science of navigation, and as being a practical seaman of much experience and ability; his astronomical observations have stood the severest tests of modern science; while his feats of seamanship will bear comparison with those of the ablest and most daring of our modern navigators. Of his great determination, perseverance, and indomitable courage, some remarkable instances will be adduced; and that his personal character, and general conduct, were such as to secure to him the respect, confidence, and attachment of those who sailed with him, is clearly manifest from various expressions in Gerrit de Veer's simple narrative, and from its tone throughout.

The name of this able navigator has been written in various ways. The Dutch usually have Barentsz., which has been adopted in the notes on Phillip's text in the

[1] See the Appendix, page 273.

[2] Ghelijck als t'selfde, uyt de beschrijvinghe ofte t'verbael des voorseyden Willem Barentsz. ghenoechsaem (met lief overcomende) verthoont sal worden, tot welckes ick my refereere."—*Voyagie*, etc., fol. 18 verso.

present volume, it being the usual native contraction of the full name, Barentszoon. In the Amsterdam Latin and French versions of De Veer's work, the name is translated "filius Bernardi," and "fils de Bernard". Purchas and other early English writers, have Barents or Barentson, and sometimes even Bernardson. The first of these forms —namely, *Barents*—is most conformable to the genius of our language (in which we have Williams and Williamson, Richards and Richardson, etc.), at the same time that it accords with that of the Dutch, in which language this form of name is not uncommon. Barentz and Barentzen, as it has not unfrequently been written, are incorrect.

On the 4th of June, 1594, the little fleet lying off Huysdunen, by the Texel, the commander of the Swan, Cornelis Nai, was named admiral or commodore, and an agreement made[1] that they should keep company as far as Kildin, on the coast of Lapland. On the following morning, being Sunday, the admiral set sail, commanding the others to follow; but as the Amsterdammers said they were not quite ready, they remained behind, though, as appears from their journal,[2] they too sailed in the course of the same day. On the 21st, the Mercury of Enkhuysen arrived at Kildin, on the 22nd, the Swan, and on the 23rd, Barent's two vessels. On the 29th of the same month Barents left Kildin on his separate voyage to Novaya Zemlya, arranging with the others that, in case they should not meet beyond that country, but should have to return, they would wait for one another at Kildin till the end of September. On the 2nd of July the ships of Nai and Tetgales took their departure for Vaigats.

For want of taking a comprehensive view of this, and the subsequent voyages in which Barents was engaged, most writers on the subject have fallen into considerable

[1] Te samen Admiraelschap ende een vast verbondt ghemaeckt.—*Linschoten*, fol. 3.

[2] De Veer, p. 6.

error. By some the two expeditions of Nai and Barents have been treated as totally distinct; while by others Barents has been regarded as the chief commander of the whole. Thus, Blaeu, in the first part of his *Grand Atlas*,[1] published at Amsterdam in 1667, speaks of this expedition in the following terms:—"Dans cette grande entreprise, la ville d'Amsterdam, aujourd'huy la plus puissante des sept Provinces unies, se porta des premières, et fournit deux vaisseaux, qui furent accompagnez d'un troisiesme de Zelande et d'un quatrième d'Enchuse, *tous quatre excellemment equippez, et qui eurent pour principal gouverneur et pilote tres-expert Guillaume fils de Bernard.*" It would be a mere loss of time to refer to what other writers have said on the subject.

The voyage of William Barents in the Mercury of Amsterdam, forms the subject of the "First Part" of the present volume. Without entering here into any needless repetition of the particulars of this voyage, it shall be merely remarked that on the 4th of July, Barents first came in sight of Novaya Zemlya in 73° 25′ N. lat., near a low projecting point, called by him Langenes, whence he proceeded northwards along the coast, till, on the 10th of the same month, he passed Cape Nassau.[2] Thus far he had met with no obstacle to his progress. But during the night of the 13th he fell in with immense quantities of ice, and here his difficulties began. After vainly endeavouring to make his way through the ice, he, on the 19th of the month, found himself again close to the land about Cape Nassau.[3] Nothing daunted, he once more struggled forwards, and at length, on the last day of July, reached the Islands of Orange. Here, "after he had taken all that paine, and finding that he could hardly get through to accomplish and ende his intended voyage, his men also beginning to bee weary and would saile no further, they all

[1] Page 27. [2] De Veer, pp. 11-16. [3] *Ibid.*, p. 20.

together agreed to returne back againe."[1] On the following day, therefore, they commenced their homeward voyage, and on the 3rd of August they reached Cape Nassau.

From a perusal of the mere dry details of their various courses in this part of their voyage, which are nearly all that is recorded in their journal, no idea could be formed of the difficulties they had to contend with, or the amount of labour actually performed. It is only when their track is laid down on the map,—as it has been, most carefully and with all possible accuracy, by Mr. Augustus Peterman, —that their enormous exertions become apparent. The result is really astonishing. Their voyage from Cape Nassau to the Orange islands and back occupied them from the 10th of July till the 3rd of August, being twenty-five days. During this period, Barents put his ship about eighty-one times, and sailed 1,546 geographical miles, according to the distances noted in the journal; to which, however, must be added the courses sailed along the coast, and also those which in some instances have been omitted to be specified, so that it may be reasonably assumed that the entire distance gone over was not much (if anything) short of 1,700 miles. This is equal to the distance from the Thames to the northern extremity of Spitzbergen, or from Cape Nassau to Cape Yakan, not far from Bering's Strait. And all this was performed in a vessel of one hundred tons' burthen, accompanied by a fishing smack!

One remarkable fact must not be omitted to be mentioned. On laying down Barents's track from the bearings and distances given in his journal, from the 10th to the 19th of July, being the interval between his passing Cape Nassau, and being driven back again to that point,—during which period he tacked about in numerous directions, and sailed more than six hundred miles,—Mr. Petermann found it to agree so accurately, that its termination

[1] De Veer, p. 27.

fell precisely upon Cape Nassau, without any difference whatever. This extreme precision can hardly be regarded as anything but a singular coincidence. Nevertheless, when viewed in connexion with Barents's other tracks, and with his observations generally, as tested by the recent explorations of Lütke and other modern navigators, it must still remain a striking proof of the wonderful ability and accuracy of that extraordinary man.

After passing Cape Nassau, Barents continued his course southwards without any remarkable incident, till on the 15th of August he reached the islands of "Matfloe and Dolgoy,"—Matvyeéa Ostrov and Dolgoi Ostrov of the Russians, meaning Matthew's Island and Long Island,—where he fell in with Nai and Tetgales, who had just arrived there, on their return from the Sea of Kara through Yugorsky Shar (Pet's Strait), to which, with pardonable national vanity, they had given the name of the Strait of Nassau. Their report was that they had sailed fifty or sixty Dutch miles (200 or 240 geographical miles) to the eastward of that strait, and in their opinion had reached about the longitude of the river Ob, and were not far from Cape Tabin (Taimur), the furthest point of Tartary, whence the coast trended to the south-east, and afterwards to the south, towards the kingdom of Cathay.[3]

After much rejoicing on both sides at their happy meeting, the whole fleet now sailed homewards in company, and on the 14th of September came to the Doggers Sand, whence Nai, in the Swan, proceeded to Middelburg, whilst the other vessels passed by the Texel to their several ports.

The reports made by Barents and Linschoten of the results of their respective voyages were very different in character. The former, though anything but an illiterate man, could make no pretensions to scholarship. The latter

[3] De Veer, p. 36.

was an accomplished scholar, as is plainly shown by his narrative of this first and of the second voyage (which will be more particularly noticed in the sequel), and by his other published works; and though the vessels which he accompanied had not in reality accomplished so much as those of Barents, yet he appears to have had no difficulty in convincing their employers and the higher authorities that they had been not far from the realisation of the object of their voyage.

That, in the estimation of the Amsterdammers, Linschoten represented matters in too favourable a light, is manifest from Gerrit de Veer's innuendo at the commencement of his description of the second voyage, that he "de saeck vry wat breedt voort stelde,"[1] which caused Linschoten to reply that, whether he had done so or not, he left to the judgment of the discreet reader.[2]

Our present knowledge of those seas enables us to judge the question fairly and impartially between the two, and to decide that, when at the Islands of Orange, Barents had sailed from Kildin, their point of separation, further in a direct line, and made a more easterly longitude, than Nai and Tetgales had when at their furthest point on the eastern side of the Sea of Kara; and that, when there, he was quite as near as they were to the mouth of the Ob, and *as near again to Cape Taimur;* with the certainty, further, that from the former position a passage eastwards would at most times, if not always, be attended with fewer difficulties than from the latter. And it cannot be denied that Linschoten, in stating as he does on the title-page of his work, and at the commencement of his Introduction, without any

[1] Page 40.

[2] Al hoe wel dat die van Plancius opinie zijn, in haer Tractact te verstaen gheven, dat ick da sake breeder aenghedient hadde, als sy in effect was, t'welck ick den discreten leser t'oordeelen gheve.— *Voyagie*, fol. 24.

qualification, that he "sailed through the Strait of Nassau to *beyond the river Oby*," has certainly afforded a justification for De Veer's imputation that he represented matters "vry wat breedt."

Stimulated by Linschoten's report, the adventurers who had fitted out the former expedition, with others who now joined them, determined on dispatching in the following year a large and well-appointed fleet, not merely in the hope of accomplishing the passage to China which had been so well commenced, but also with a view to the establishment of an advantageous trade with that kingdom, and the other countries that might be discovered and visited in the course of the voyage, in respect of which trade they obtained from the Government of the United Provinces certain exclusive privileges and advantages.

This fleet consisted of seven vessels, namely, two from Zeelandt, two from Enkhuysen, two from Amsterdam (which city, in consequence of the want of success of Barents's first voyage by Novaya Zemlya, was now willing to take part in the undertaking of the other ports), and one from Rotterdam. The following are the names of the vessels and of their commanders. The Griffin (*Griffoen*), of Zeelandt, of the burthen of 100 lasts (200 tons), commanded by Cornelis Cornelisz. Nai, who was appointed admiral or superintendent of the fleet; the Swan (*Swane*), also of Zeelandt, of the burthen of 50 lasts (100 tons), which had been on the former voyage, and was now commanded by Lambert Gerritsz. Oom, of Enkhuysen; the Hope (*Hoope*), of Enkhuysen, a new war-pinnace (oorlogspinas) of 100 lasts, commanded by Brant Ysbrantsz. Tetgales, vice-admiral; the Mercury (*Mercurius*), of Enkhuysen, of 50 lasts, which had been on the former voyage, and was now commanded by Thomas Willemszoon; the Greyhound (*Winthont*), of Amsterdam, likewise a new war-

[1] De Veer, p. 64.

pinnace, of 100 lasts, commanded by William Barents, pilot-major of the fleet, under whom was Cornelis Jacobszoon as skipper;[1] a yacht[2] of Amsterdam, of 50 lasts (probably the Mercury of the former voyage), commanded by Harman Janszoon; and lastly, a yacht of Rotterdam, of about 20 lasts, or 40 tons burthen, commanded by Hendrick Hartman. The last-named vessel was commissioned, when the fleet should have reached Cape Tabin, or so far that it might thence continue its course southwards without hindrance from the ice, to return and bring news of their success to Holland. The vessels were all well equipped, with a double complement of men, and ammunition and victuals for a year and a half. The interpreter of the fleet was Meester Christoffel Splindler, as on the former voyage. As supercargoes on behalf of the merchants of Holland and West Friesland, were Jan Huyghen van Linschoten, Jacob van Heemskerck, and Jan Cornelisz. Rijp; and for those of Zeelandt, François de la Dale and N. Buys, with some other relatives of Balthazar Moucheron. Linschoten and De la Dale were further appointed chief commissioners of the fleet on behalf of his excellency prince Maurice and the States General, from whom they received the following commission:—

INSTRUCTIONS *to Jan Huygen van Linschoten and Françoys de la Dale, Chief Commissioners, for the regulation of their conduct in the kingdom of China, and other kingdoms and countries which shall be visited by the ships and yachts destined for the voyage round by the North, through the Vaigats or Strait of Nassau.*

In the first place, after Mr. Christoffel Splindler, the Slavonian, shall have been on shore and ascertained whether they may land there, they shall go on shore to the king, gover-

[1] De Veer, p. 42.

[2] The expressions *vlyboot* and *yacht* seem to have been used, like "cutter" and "clipper" in modern times, to designate quick-sailing vessels.

nor, or other authority of the place, to whom they shall, on behalf of these States, offer all friendship, and shall explain the circumstances of these States, namely, that they hold communication by sea with all countries and nations in the whole world, for the purpose of trafficking, trading, and dealing with them in a friendly and upright manner, for which they possess many advantages of divers sorts of merchandise and otherwise.

Item, that the Government of this Country being surely informed that upright trade, traffic, and dealings are carried on in the said kingdoms and countries, have found it good to send thither some ships, under good order, government, and regulation, with merchandise, money, and other commodities, in order to begin dealings, by means of certain trusty and honest persons on board the said ships, for whom they shall ask free intercourse there, to the end aforesaid.

They shall do their best to come to an agreement for a fair, faithful, upright, and uninterrupted trade, traffic, and navigation, to the mutual advantage of the said kingdoms and of these States, as well as of their respective inhabitants; and in case the same shall be found good there, they shall declare that to that end it is intended to visit them with a good embassy by the first opportunity, provided the same shall be agreeable to them.

They shall explain there what commodities and merchandizes can from time to time be taken thither from these States; and they shall also carefully examine so as to ascertain what merchandizes and wares may, in return for the same, be obtained from those kingdoms and countries and brought to these States.

They shall keep a good and accurate account of everything that shall occur during the voyage, as well on shipboard, in the discovery of countries and ports, and on all other occasions, as likewise of that which shall happen to them on shore; so that, immediately on their return, they may of all things make a good and faithful report in writing to the Lords the States General.

Done and concluded in the Assembly of the Lords the States General of the United Netherlands at the Hague, the 16th of June 1595.

Sloeth v^t.

By order of the Lords, the States aforesaid.

C. Aersens, &c.[1]

[1] Linschoten, fol. 24 verso.

The several vessels composing the fleet having assembled at the Texel, they all sailed out of Mars Diep on the morning of Sunday, the 2d of July, 1595. It was not till the 10th of August that they passed the North Cape, and on the 17th they fell in with ice, being then about fifty miles distant from the coast of Novaya Zemlya. On the following day they reached the island of "Matfloe",[1] and on the 19th came to the mouth of the strait to the south of Vaigats Island (Yugorsky Shar), where they found the ice to lie in such quantities, "that the entire channel was closed up as far as the eye could see, so that it had the appearance of a continent, which was most frightful to behold".[2] Under these circumstances they scarcely knew how to act, but at length resolved to go into the roadstead called Train-oil Bay (*Traenbay*[3]), where, as it was under the shelter of Idol Cape (*Afyoden Hoeck*), and thus out of the current which set from the strait, there was a little open water.[4] The preceding winter appears to have been more than ordinarily severe, and the ice-masses set in motion by the summer's sun were consequently far greater in quantity than usual. This, coupled with the late period of the year at which, from some unexplained cause, they had commenced their voyage, soon convinced them that they had but little prospect of being able to get forward. On the 20th August, while thus lying in Train-oil Bay, a council was held on board the admiral's ship, when it was decided that a yacht should be sent to examine the condition of the strait and the probability of their getting through, and also that a party of thirty or forty armed men should proceed across the Island of Vaigats for the same purpose. The yacht could go no further than Cross Point, where the entire sea was found to be covered with ice without the least break or

[1] See De Veer, p. 50, and the note there.

[2] Linschoten, fol. 27 verso.

[3] De Veer, p. 53.

[4] Linschoten, fol. 27 verso.

opening ; but the crew thence proceeded by land as far as Cape Dispute, though without better success. The party of men—whom De Veer describes[1] as fifty-four in number, himself included—returned with a somewhat more favourable report ; for they thought they had discovered a practicable passage, because they saw so little ice there.[2] In this their experience agreed with that of Pet and Jackman, who found a passage close along the shore, between the ice and the land, at times when the deep sea was entirely filled with ice-masses.[3]

On the 24th of August a yacht was again sent out to inspect the strait, and got as far as Cross Point, bringing back the consolatary intelligence that the ice was beginning to move, and that all was clear, with open water, as far as Cape Dispute. On the following day therefore the fleet weighed anchor, and sailed as far as beyond the latter cape, without meeting with any ice ; but soon afterwards they fell in with such quantities that they were forced to return. That night they anchored between Cape Dispute and Cross Point, and on the following day betook themselves to their former station under Idol Cape, "there to stay for a more convenient time."[4] Here they were so entirely surrounded by the ice, that they could walk dry-foot from one ship to the other.[5]

The admiral and other officers had now evidently given up all hopes of effecting a passage, to which result the murmurings of the crews may perhaps have contributed. Barents, however, with that determination and perseverance for which he appears to have been distinguished, was not so satisfied as they were that nothing more could be done ; and as on the 30th of August the ice began again to move, he, on the following day, had a good many words with the admiral on the subject,[6] after which he in person crossed

[1] De Veer, p. 53.
[2] *Ibid.*, p. 54.
[3] See pages lxxi-ii, *ante*.
[4] De Veer, p. 57.
[5] Linschoten, fol. 29 verso.
[6] De Veer, p. 60.

over the strait to the main land of the Samoyedes, where he made inquiries of the natives. On his return the following day, he again "spake to the admirall to will him to set sayle, that they might goe forward; but they had not so many wordes together as was betweene them the day before."[1] The conversation which ensued is quaintly told by De Veer, and with an air of perfect truthfulness. On the following morning (September 2nd), a little before sunrise, Barents began to warp his vessel out, when Nai and Tetgales, on seeing him do so, "began also to hoyse their anchors and to set sayle."[2] The result of this movement was, that, with immense labour and difficulty and no little danger, they succeeded in making their way through the ice as far as States Island, which they reached in the evening of the 3rd September; sailing on the following morning a little further along the channel between that island and the mainland, so as to be sheltered from the drifting of the ice.[3]

This was virtually the termination of their voyage. On the following day (September 4th) a council was held on board the admiral's ship, when it was decided that, "in order not to fail in their duty,"[4]—which means that it was little more than a matter of form,—they should on the following day make one more endeavour to get through the ice; and if they did not succeed, that then they should not attempt it any further, seeing that the time was passing rapidly, and the winter, with its dreadful cold and long nights, was on the point of setting in. "For," adds Linschoten,[5] "it is now sufficiently clear and manifest that it does not please the Lord God to permit us this time to proceed further on our voyage of discovery, so that it is not

[1] De Veer, p. 60.
[2] *Ibid.*, p. 61.
[3] *Ibid.*, p. 62; Linschoten, fol. 32.
[4] Om immers aen ons devoir niet te ontbreken.—*Linschoten*, fol. 32.
[5] Linschoten, fol. 32.

fitting that we should wilfully tempt Him any longer and run with our heads against the wall."

It cannot be denied that Nai and his companions were beset with great difficulties, and that any further attempts might have been extremely hazardous. The crews too of the vessels were now louder in their murmurs, and complained that their commanders desired their deaths, inasmuch as being surrounded by the ice, they ran the chance of remaining locked up during the whole winter;[1] added to which, the loss of two men, who were killed by a bear on the 6th of September,[2] was not at all unlikely to augment the panic, and to cause insubordination among the survivors.

Finding the sea to continue quite full of ice, a council was again held on the 8th September on board the admiral's ship, in order to determine finally whether they should proceed or return, whereon a great debate took place.[3] Most of them were of opinion that they should at once return. To this however, the Amsterdammers were opposed, their opinion being that some of them should volunteer to remain there with two of the vessels during the winter, and take their chance of the wintering, besides seeing whether they could not manage to get through, or else trying whether they might not be able to make their way to the west of Vaigats, and so round by the north of Novaya Zemlya. But it was replied, that the time for doing so was past, and that moreover it did not accord with their instructions. Nevertheless, if they wished it, they could do it of their own authority, and then see how they might afterwards answer for their conduct.[4]

On the following day the indefatigable Barents "went on shoare on the south side of the States Iland, and layd a

[1] Linschoten, fol. 32.
[2] De Veer, p. 62; Linschoten, fol. 32.
[3] Waer over een groot debat ghevallen is.—*Linschoten*, fol. 32 verso.
[4] Linschoten, fol. 32 verso.

stone on the brinke of the water, to proue whether there were a tide, and went round about the iland to shoote at a hare; and returning"—as he says in the only writing undoubtedly of his original composition which has been preserved to us—"I found the stone as I left it, and the water neither higher nor lower; which prooueth, as afore, that there is no flood nor ebbe."[1]

He could scarcely have returned on board before the fleet set sail from States Island, on their return to the strait; but the ice came in so thick and with such force, that they could not get through, and therefore had to put back in the evening.[2] Next day, however, they succeeded in again reaching Cape Dispute, where they anchored.

On the 11th, it was decided that they should once more sail towards the ice, for the purpose of removing all doubts as to the impossibility of proceeding; but they had not sailed three hours before they reached the firm ice, which stretched round in all directione, completely preventing all further passage.[3] They therefore returned and anchored at Cross Point, where they remained till the morning of the 14th, when Barents weighed his anchor and set his top mast, thinking once again to try what he could do to further his voyage; but the admiral, being of another mind, lay still till the 15th of September.[4]

On that day, as Linschoten relates in no very courteous language, "seeing how the weather had set in, the Amsterdammers thought better of the matter, and let their obstinacy somewhat abate (lieten hun obstinaetheyt wat sincken), agreeing to conform with all the rest."[5] The following protest, which had been drawn up by Linschoten, was accordingly signed by Barents together with the other officers,[6] and the

[1] See Appendix, p. 274. [2] Linschoten, fol. 33; De Veer, p. 56.
[3] *Ibid.*, fol. 33 verso. And see De Veer, p. 65.
[4] De Veer, p. 66. [5] Linschoten, fol. 32 verso.
[6] Lütke says (p. 34) that it was signed by all *except Barents*. But it

same day the whole fleet sailed out from the west end of the strait homeward bound.

PROTEST.

On this day, the 15th of September, 1595, in the country and in the roads of the Cross Point, in the Strait of Nassau, where the ships are now lying at anchor all together, by desire and command of the admiral, Cornelis Cornelisz., the captains or pilots of all the aforesaid ships being assembled and met together in the cabin of the ship of the said admiral, in order that, jointly and each of them severally, they may without dissimulation and freely declare their opinion and final decision, and so consult together as to what is best and most advantageous to be done and undertaken in respect of the voyage which they have commenced round by the north towards China, Japan, etc.; and they having maturely and most earnestly considered and examined the subject, and also desiring strictly to carry out, as far as is practicable and possible, the instructions of His Excellency and the Lords the States, for the welfare and preservation of the same ships, their crews and merchandize: It is found that they have all of them hitherto done their utmost duty and their best, with all zeal and diligence, not fearing to hazard and sometimes to put in peril the ships and their own persons (whenever need required it), in order to preserve their honour in everything, and so as to be able with a clear conscience to answer for the same to God and to the whole world. But inasmuch as it has pleased the Lord God not to permit it on the present voyage, they find themselves most unwillingly compelled, because of the time that has elapsed, to discontinue the same navigation for this time, being prevented by the ice caused by the severe and unusually long frost, which, from what they have heard on the information of others and from their own experience, has this year been very hard and extraordinary in these parts. All which having been well considered and discussed by them together, they find no better means, being forced by necessity, than, with the first fit weather and favourable

will be seen that his signature stands in its proper rank, the third, among the others. Lütke's mistake appears to have arisen from his having followed Adelung, who copied from the *Recueil de Voyages au Nord*, where, in the list of names, that of Barents is certainly omitted, though from what cause except inadvertency cannot be imagined.

wind, to take their course homewards, all together and in the order in which they came, using every diligence so as if possible to preserve themselves from the frost which is momentarily expected to set in, and with God's help to bring the ships, before all the perils of winter, into a safe harbour; inasmuch as at the present time no other better means can be found to lead them to a better judgment. Protesting before God and the whole world, that they have acted in this matter as they wish God may act in the salvation of their souls, and as they hope and trust cannot be gainsaid or controverted by any of those who have accompanied them; and they willingly submit themselves to defend this at all times, if requisite, by means of the fuller and more detailed journals and notes, which each of them, separately and without communication with the others, has kept thereof. And in order that there may be no disorder or idle talking unjustly spread abroad, to the disadvantage or derogation of those who with such good will have braved so many perils for the honour and advantage of our country, whereby they might be deprived of their merited reward, they have, for their defence and in order to provide before hand against the same, unanimously signed this Act, which I, Ian Huyghen van Linschoten, have drawn up at their request, and together with Françoys de la Dale, as chief commissioners of the said fleet, have, with the like affirmation and in further corroboration, in like manner signed, the day and date above written.

Cornelis Cornelisz.
Brant Ysbrantsz.
Willem Barentsz.
Lambert Gerritsz.
Thomas Willemsz.
Harmen Ianssz.
Hendrick Hartman.
Ian Huyghen van Linschoten.
Françoys de la Dale.

It may well be conceived that it was no easy task for a bold and resolute sailor, and at the same time a devout and conscientious man, as William Barents undoubtedly was, to "protest before God, as he wished He might act in the salvation of his soul", that it was impossible for him to do more than he had done, so long as his ship was staunch

and he had a crew willing to go forward with him, or even to brave a winter residence in those inhospitable regions. Linschoten speaks of the dissentient Amsterdammers in the plural number; whence it is to be inferred that Barents did not stand alone, but that Harmen Ianszoon, the master of the other Amsterdam vessel, was at first of the same opinion; and, most probably, it was only when he yielded, that Barents saw himself, however reluctantly, forced to give in.

After the protest had been so signed, the fleet proceeded on its homeward voyage, and on the 30th of September reached Wardhuus, where it remained till the 10th of the following month. The vessels then again set sail all together; but the vice-admiral's ship, the Hope, on board of which was Linschoten, managed to get the start of the rest, arriving at the Texel on the 26th of October. It was not till the 18th of the following month that Barents's vessel arrived in the river Maas.

The journal of the proceedings of the fleet, which was kept by Linschoten in pursuance of his instructions, was communicated by him to the Government immediately on his arrival; but it was not till six years afterwards that he published his very interesting and valuable narrative of this voyage, as well as of that of the preceding year so far as concerns the Enkhuysen vessels, which had sailed through Yugorsky Shar—"Pet's Strait" or the "Strait of Nassau"—into the Sea of Kara.

So little appears to be known by bibliographers respecting Linschoten's narrative of these voyages, that we have scarcely the means of describing any other editions than those which happen to exist in the British Museum.

The earliest of these appeared in Dutch, in 1601, in folio, under the following title:—

Voyagie, ofte Schip-vaert, van Ian Hvyghen van Linschoten, van by Noorden om langes Noorwegen, de Noort-

caep, Laplant, Vinlant, Ruslandt, de Witte Zee, de Custen van Candenoes, Swetenoes, Pitzora, &c. door de Strate ofte Engte van Nassau tot voorby de Revier Oby. Waer inne seer distinctelicken Verbaels-ghewijse beschreven ende aenghewesen wordt, alle t'ghene dat hem op de selve Reyse van dach tot dach bejeghent en voorghecomen is. Met de afbeeldtsels van alle de Custen, Hoecken, Landen, Opdoeningen, Streckinghen, Coursen, Mijlen, ende d'ander merckelicke dingen meer: Gelijc als hy't alles selfs sichtelicken eñ waerachtelicken nae't leven uytgeworpen ende gheannoteert heeft, &c. Anno 1594 eñ 1595.

Ghedruct tot Franeker, by Gerard Ketel.

The colophon has—

Ghedruct tot Franeker, by Gerard Ketel, voor Ian Huyghen van Linschoten, resideerende binnen Enchuysen, anno 1601.

This rare edition consists of thirty-eight numbered leaves, with a dedication to the States General, dated June 1st, 1601, on two leaves unnumbered, and contains numerous maps and coast views by Johannes and Baptista a Doetechum. It was reprinted at Amsterdam in 1624, likewise in folio, with the same plates.

In the first edition, between the dedication and the text, are inserted several eulogistic poems, the longest of which is an ode on "Vaygats ofte de Straet van Nassau", by C. Taemssoon van Hoorn, and another is a "Lof-dicht", by Jacobus Viverius, which is directed to be sung to the tune of the forty-second Psalm. It is worthy of remark, that, even so early as 1595, allusion was made to the first north-east voyage of Linschoten in the commendatory verses (which included also the poem on Vaygats above referred to) at the commencement of the "Reys-gheschrift van de Navigatien der Portugaloysers in Orienten.....door Jan Huyghen van Linschoten. Amstelredam, MDXCV. folio"; which work, though it bears the date of 1595, the register shows to be a portion of the author's "Itinerario, Voyage ofte Schipvaert van Jan Huygen van Linschoten naer Oost

ofte Portugaels Indien", the title-page of which is dated a year later. This was reprinted in 1604 with the same verses.

An abstract in Dutch of Linschoten's narrative was printed at Amsterdam by G. J. Saeghman, in 4to., with the following title:—

Twee Journalen van twee verscheyde Voyagien, gedaen door Jan Huygen van Linschooten, van by Noorden om, langhs Noorwegen, de Noordt-Caep, Laplandt, Findlandt, Ruslandt, de Witte Zee, de Kusten van Candenoes, Sweetenoes, Pitzora, etc., door de Strate ofte Enghte van Nassouw, tot voorby de Reviere Oby, na Vay-gats, gedaen in de Jaren 1594 en 1595. Waer in seer pertinent beschreven ende aen gewesen wordt, al het geene hem op de selve Reysen van dagh tot dagh voor gevallen is, als mede de Besschryvingh van alle de Kusten, Landen, Opdoeningen, Streckingen en Courssen, etc. T'Amsterdam, Gedruckt by Gillis Joosten Saeghman, in de Nieuwe-Straet, Ordinaris Drucker van de Journalen ter Zee, en de Reysen te Lande.

This has no date, but was probably printed in or about 1663, the year in which Saeghman printed the "Verhael van de vier eerste Schip-vaerden der Hollandtsche en Zeeuwsche Schepen naar Nova Zembla, etc.", which will be more particularly described when we come to speak of the editions of Gerrit de Veer's work.

We learn from Mr. Henry Stevens that a copy of this abstract is in the possession of John Carter Brown, Esq., of Providence, Rhode Island.

In 1610, appeared a French translation of Linschoten's voyages, with the following title:—

Histoire de la Navigation de Iean Hvgves de Linscot, Hollandois, et de son voyage es Indes Orientales: contenante diuerses descriptions des Pays, Costes, Haures, Riuieres, Caps, et autres lieux iusques à present descouuerts par les Portugais: Obseruations des coustumes des nations de delà quant à la Religion, Estat Politic et Domestic, de leurs Commerces, des Arbres, Fruicts, Herbes, Espiceries, et autres singularitez qui s'y trouuent: Et narrations des choses me-

morables qui y sont aduenues de son temps. Avec annotations de Bernard Paludanus, Docteur en Medecine,..... *à quoy sont adiorstées quelques autres descriptions* tant du pays de Guinee et autres costes d'Ethiopie, que *des nauigations des Hollandois vers le Nord au Vaygat et en la nouuelle Zembla.* Le tovt recveilli et descript par le mesme de Linscot en bas Alleman, & nouuellement traduict en François. A Amstelredam, de l'Imprimerie de Theodore Pierre, MDCX. folio.

Although the voyages to the north are thus announced in the title-page, they are not inserted in the only copy which we have been able to consult, namely, that in the British Museum; nor is any light thrown on the matter by bibliographers.

In the title of the third edition, published at Amsterdam in 1638, fol., these northern voyages are not announced, nor are they given, but the edition is described as "troixiesme édition augmentée".

The second French edition has not fallen within our reach, but we believe the date to be 1619.

The only French version of Linschoten's narrative of his northern voyages with which we are acquainted, is that inserted in the fourth volume of the "Recueil de Voiages au Nord", published in eight volumes, Amsterdam, 1715-27, 12mo.; of which another edition, in ten volumes, 12mo., was published at the same place, 1731-38.

This French version formed the basis of the German description of these voyages given by Johann Cristoph Adelung, at pp. 107-213 of his *Geschichte der Schiffahrten,* published at Halle, 1768, 4to.

An abstract of Linschoten's work is given in Latin, at fol. 31 of the first volume of Blaeu's "Atlas Major sive Cosmographia Blaviana, qua Solum, Salum, Cœlum accuratissime describuntur". Eleven volumes in folio, Amsterdam, 1662.

In the French edition, entitled "Le Grand Atlas ou

Cosmographie Blaviane", etc., 12 vols. in folio, Amsterdam, 1663, and republished in 1667, the same appears at fol. 35 of the first volume of the latter edition, which is the only one in the British Museum.

It is also at fol. 52 of the first volume of the Spanish edition, entitled " Atlas Mayor, Geographia Blaviana", etc.; Amsterdam, 1659-72, 10 vols., fol.

In the elaborate dissertation on the works of John Blaeu, contained in the fourth volume of Clement's " Bibliothèque Curieuse", mention is made, at page 277, of an " Atlas *Flamand* de l'an 1662". This is apparently a Dutch edition, to which reference is made by Lütke, under the title of "J. Blaeu's Grooten Atlas, of Werelt Beschrijving, Erste Deel, 't Amsterdam, 1662". Beyond this reference, we know nothing of that edition.

A German edition is also described by Brunet as announced in a catalogue of Blaeu's; but it is not alluded to by Clement, nor can we find any other trace of it. If ever printed or in progress of printing, it may have been consumed in the great fire, by which, on the 22nd February, 1672, nearly all Blaeu's stock in trade was destroyed.

In part XII, pp. 20-23, of Levinus Hulsius's Collection, is an extract from Linschoten's Navigation, stating the progress of the Dutch in the attempt to find the passage, the discovery of which formed a favourite scheme of his countrymen at the end of the sixteenth and beginning of the seventeenth centuries.

Summaries more or less concise, derived apparently from Blaeu's abstract, the French " Recueil de Voyages au Nord", or Adelung's " Geschichte der Schiffahrten", have also been given in most of the histories of Arctic discovery.

Gerrit de Veer's description of the second voyage, contained in the present volume, must be understood to relate almost exclusively to the proceedings of Barents's vessel, as forming one of the fleet under Nai's command. This re-

conciles or explains away such differences as may appear to exist between his narrative and that of Linschoten.

Seeing the signal failure of the second expedition, the States General, after mature deliberation, decided that no further attempt should be made at the public expense to discover a north-east passage. Nevertheless, they were still willing to encourage any private undertaking, by the promise of a considerable reward in the event of success.[1] And Plantius and Barents persisting in their opinion that a passage might be effected by the north of Novaya Zemlya, the authorities and merchants of Amsterdam were induced to take on themselves the fitting out of another expedition to proceed in that direction. It consisted of only two vessels—the names and tonnage of which are not mentioned—of which the one was commanded by Jacob van Heemskerck, who was also supercargo, and the other by Jan Corneliszoon Rijp, in the like double capacity. Barents accompanied Heemskerck, with the rank of chief pilot (opperste stuerman). Surprise has been expressed that though Barents thus occupied a subordinate station, yet in the narrative of the voyage he is made to perform the principal part. This is, however, a mistake, arising from the fact that in the abridgements and summaries of this narrative, which alone appear to have been consulted by modern writers, most of the personal matters are omitted. For it will be seen that in De Veer's original work, the skipper (or "maister", as he is called in Phillip's translation) is repeatedly mentioned, and Barent's subordinate position is clearly and unequivocally shown.[2]

A better founded cause of surprise might be, that Barents himself had not the command of the expedition. Yet for this a sufficient reason suggests itself. He was evidently resolved to perform (as it were) impossibilities, rather than fail in a project on which he had set his heart; and the

[1] De Veer, p. 70.

[2] See particularly pp. 175-178 and 188-193 of the present volume.

merchants, however willing to risk their property on the adventure, may naturally have been disinclined to entrust it absolutely to one, who would not have hesitated to sacrifice it, or even his own life, in the attempt to accomplish his long-cherished undertaking.

In being made subordinate to a nobleman like Jacob van Heemskerck, who, though no seaman by profession, had already sailed with him, and had thus had an opportunity of learning and appreciating his many estimable qualities, Barents, a man of humble birth, could however in no wise have felt himself humiliated or aggrieved. It was a case similar to that of Sir Hugh Willoughby and Richard Chancellor, and was moreover quite in accordance with the practice of those times, which afford repeated instances of the command of a naval expedition being entrusted to a soldier, who had probably never before been on salt water.

But while Heemskerck thus held the superior rank of captain, Barents's relation to him was evidently that of an equal, rather than that of an inferior. This is particularly evidenced in the conversation which took place between them shortly before Barents's death, when the latter called his nominal commander "mate".[1] And that the crew looked on Barents as virtually the leader of the expedition is shown, not only by their appeals to him on all important occasions, but by the curious fact that in the signatures to the "letter" which they wrote on the eve of their departure from their winter quarters,[2] the name "WILLEM BARENTSZ." is printed in capital letters, while that of Heemskerck, though placed in rank above Barents's name, is only in ordinary type, like those of the rest of the crew.

We have now to take a rapid glance at some of the most important results of this third voyage, into the particulars of which, as they are recorded in De Veer's journal, it is unnecessary to enter.

[1] De Veer, p. 125. [2] *Ibid.*, p. 193.

The experience of the two former voyages appears to have impressed Rijp, even more than Barents himself, with the expediency of giving the land to the east a wide sea room; for, notwithstanding that they at first steered their course much more to the northward than before, yet it was not long before disputes arose between them, Barents contending that they were too far to the west, while Rijp's pilot asserted that he had no desire to sail towards Vaigats.[1] Barents gave way; and the result was, that on the 9th of June they came to a small steep island, in latitude 74° 30′, to which they gave the name of Bear Island, from the circumstance of their killing there a large white bear.[2]

Seven years later this island was visited by Stephen Bennet, who called it Cherie Island, after his patron, Master (subsequently Sir) Francis Cherie, a distinguished member of the Russian Company. This latter name has usually been inscribed in our English maps, though unjustly, inasmuch as the merit of the first discovery of the island unquestionably belongs to the Dutch. Captain Beechey says, indeed, that "a passage in Purchas seems to imply that it had been known before Barents made this voyage;"[3] but the only passage bearing on the subject which we have been able to find, is the statement of Captain Thomas Edge, in "A briefe Discouerie of the Northern Discoueries of Seas," etc., that the Dutch came "to an iland in the latitude of 74 degrees, which *wee call* Cherie Iland, and they call Beare Iland,"[4] as if the former name had been given before the latter. It is to be hoped that in future English maps, the original and correct name will always be inserted.

From Bear Island our adventurers continued their course northwards, and on the 19th of June, when in latitude 79° 49′ N., they again saw land,[5] which was supposed by them

[1] De Veer, p. 73. [2] *Ibid.*, p. 76.
[3] *Voyage towards the North Pole*, p. 35.
[4] Purchas, vol. iii, p. 464. [5] De Veer, p. 77, and the note there.

to be a part of Greenland, but which subsequent investigation has shown to be the cluster of islands known by the name of Spitzbergen. Round this land they coasted till the 29th, when they again sailed southwards towards Bear Island.[1]

The first discovery of this country by our Dutch navigators is now universally admitted, though formerly the idea was entertained that they had been anticipated by Sir Hugh Willoughby. But that Spitzbergen was actually *circumnavigated* by them is a fact which, as far as we are aware, has never been adverted to by any writer on Arctic discovery. The details of this portion of Barents and Rijp's voyage are neither full nor precise enough to enable us to follow them minutely in their course; added to which, the maps of Spitzbergen, especially of its eastern side, are still not sufficiently trustworthy to render us much assistance in laying down their track. There can, however, be no doubt that they sailed up its eastern shores, passed along its northern extremity, and returned by the western coast. That part of Spitzbergen which they first saw in 79° 49′ N. lat., seems to be the south-east coast of the Noord Ooster Land of the Dutch maps, along which they sailed in a westerly direction, and entered Weygatz or Hinlopen Strait. This assumption agrees with the above latitude and with those of the subsequent positions in 79° 30′[2] and 79° 42′,[3] as also with the time it took—several days—to get out of that strait. The two havens described under the date of June 24th,[4] may be the Hecla Bay and Lomme Bay of Parry. The considerable bay or inlet (gheweldigen inham) under 79°, to which they came on the following day, and "whereinto they sailed forty miles at the least, holding their course southward",[5] can only be Weide Bay. Finding that its southern extremity "reached to the firme land", they were forced to

[1] De Veer, p. 85. [2] *Ibid.*, p. 78. [3] *Ibid.*, p. 83.
[4] *Ibid.*, p. 84. [5] *Ibid.*, p. 84.

work their way back against the wind, till they "gate beyonde the point that lay on the west side, where there was so great a number of birds that they flew against their sailes".[1] This point, in consequence, received the name of Bird Cape. From thence their course is plainly to be traced along the western coast of Spitzbergen, and so back to Bear Island.

On the 1st of June, when near that island, disputes again arose between Rijp and Barents as to the course which they should take. The result was that they separated, Rijp returning northwards, while Barents proceeded southwards because of the ice.[2]

Of Rijp's subsequent proceedings nothing is known except that he is stated to have sailed back to Bird Cape, on the west side of Spitzbergen, whence he returned with the intention of going after Barents.[3] How far he carried his

[1] De Veer, p. 85. [2] *Ibid.*

[3] De Bry, *India Orientalis*, part ix, p. 51. In Scoresby's *Account of the Arctic Regions*, vol. i, p. 80, the spot reached by Rijp is called "the *Bay* of Birds", De Bry being referred to as the authority. But that writer's words are—"Sub gr. 80 circa Volucrium *Promontorium*, a quo postmodum animo ad Guilhelmum redeundi discessit."

Just as this sheet was going to press, we have found that the article in De Bry, from which the above extract is taken, is a translation of the following work :—"Histoire du Pays nommé Spitsberghe. Comme il a esté descouvert, sa situation et de ses Animauls. Avec le Discours des empeschemens que les Navires esquippes pour la peche des Baleines tant Basques, Hollandois, que Flamens, ont soufferts de la part des Anglois, en l'Année presente 1613. Escript par H. G. A. Et une Protestation contre les Anglois, & annullation de tous leurs frivolz argumens, par lesquelz ils pensent avoir droit de se faire seuls Maistres du dit Pays. A Amsterdam, chez Hessel Gerard A. a l'ensiegne de la Carte Nautiq. MD.C.XIII."

This appears to be the work to which Purchas (vol. iii, p. 464) makes the following allusion :—"I have by me a French Storie of Spitsbergh, published 1613 by a Dutchman, which writeth against this English allegation, &c., but hotter arguments then I am willing to answer." It gives an account of the voyage of Rijp and Barents,

intention into effect is not said; but nothing worthy of remark can have occurred to him, or otherwise it could not have failed to be recorded. We may therefore conclude

which, though agreeing generally with that of De Veer, differs from it in some important particulars. What is most remarkable is, that it is said to have been written by Barents himself:—"Mais pour sçavoir deuvement ce qu'ils ont trouvé en ceste descouvrãce, i'ay trouvé bon de mettre icy un petit extraict du Journal, *escrit de la main propre de Guillaume Bernard*".

Want of time and space prevents us from giving the subject any lengthened consideration. But from what we have been able to make out, our impression decidedly is, that it was never written by Barents, but was attributed to him solely for the purpose of giving to it an authority which it might otherwise not have possessed. For, in the first place, Barents never returned to Holland subsequently to the discovery of Spitzbergen, but died off the coast of Novaya Zemlya, on the 20th of June, 1597; so that, even assuming him to have written a journal *with his own hand*, that journal must have passed into the possession of Gerrit de Veer, the historian of the voyage, and would assuredly have formed the basis of his narrative; and hence the discrepancies which exist between the two could never have arisen. And, in the second place, this journal states, under date of the 24th of June, 1596, "la terre (au lõg du quel prenions nostre route) estoit la plus part rompue, bien hault. et non autre que monts et montaignes agues, *parquoy l'appellions Spitzbergen*". Yet, so far was Barents from having given this name to the newly-discovered country, that we find it expressly stated by De Veer (p. 82), under date of the 22nd of June, that they "esteemed this land to be *Greene-land*". And not merely so, but after the latter's return to Holland, where he had the opportunity of consulting with Plantius and other geographers, he still retained that opinion; for in the dedication to his work, which is dated "Amsterdam, April 29th, 1598", he says that "the eastern part of Greenland *(as we call it)* in 80°, is now ascertained, where it was formerly thought there was only water and no land"; clearly proving that even at that time there was no idea of calling the newly-discovered country by the name of Spitzbergen, or of considering it anything but "the *eastern* part of Greenland".

But, not long afterwards, the *western* coast of Spitzbergen having been visited by the vessels of other nations, and its importance as a station for the whale fishery having been ascertained, the Dutch were naturally anxious to establish their claim to its first discovery. This was the object of Hessel Gerard's tract: a most legitimate one in itself, though, unfortunately, carried out in a very unscrupulous manner.

that he soon gave up his search after Barents and returned to Holland, and that, in the following year, he went from thence on a trading voyage to the coasts of Norway or Russia, and was on the point of sailing from Kola on his way home, when Heemskerck and the survivors of his crew arrived there, as is related by De Veer.[1]

Meanwhile Barents, having cleared the ice, held on his course to the east till he reached the western shore of Novaya Zemlya, in about latitude 73° 20′,[2] whence he coasted along the land till he had passed considerably beyond the furthest point reached by him on his first voyage, and had rounded the north-eastern extremity of that country. Here, being at length quite shut in by the ice, and unable to make his way either forwards towards the north-east, or round by the eastern side of the land, or even back again by the way he had come, he and his adventurous companions, on the evening of the 26th of August, "got to the west side of the

For, not only did he attribute the authorship of this journal to Barents, and in it make him first use the name of Spitzbergen; but as, from the then prevailing ignorance respecting the geography of that country, it was not possible to trace that navigator's true course along its *eastern* coast, round about its northern end, and so down the western coast, he did not scruple to falsify Barents's track, and make him sail from Bear Island on the 13th of June sixteen Dutch miles *west*-north-*west* and fifteen miles north-*west*, where De Veer (p. 76) has sixteen miles north and *somewhat easterly;* and then again on the 14th, twenty-two miles north by *west*, where De Veer (p. 77) has twenty miles north and north and by *east*, and on the 16th thirty miles north and by *east*. By thus altering the direction of Barent's course, Gerard certainly brought him to the *western* coast of Spitzbergen; but he thereby rendered the remaining portion of the voyage, which was westward *along the northern side of the land*, an impossible course *in the sea between Spitzbergen and Greenland!* The fact of Gerard's tract having been republished in De Bry's Collection, which work is well known to literary men, while De Veer's original journal has rarely, if ever, been consulted by them, is doubtless the reason why the circumnavigation of Spitzbergen by Barents and Rijp has hitherto remained unknown.

[1] Pages 248, 251.

[2] De Veer, p. 89, and the note there.

Ice Haven, where they were forced, in great cold, poverty, misery, and grief, to stay all that winter."[1]

Before adverting to the subject of the memorable wintering of the Dutch at this spot, it is necessary to make a few remarks with respect to the identification of the several points along the coast, which were reached and noted by them during the course of their first and third voyages. This is the more needful, because widely different opinions are entertained by two of the highest living authorities on the subject, Admiral Lutke and Professor von Baer.

The former, as is well known, was engaged in surveying the Northern Ocean between the years 1821 and 1825, during which period he visited many parts of the western coast of Novaya Zemlya between its southern extremity and Cape Nassau to the north, and identified most of the points visited by the Dutch, which he laid down in the map accompanying the published account of his four voyages, to the German translation of which allusion has already been made. Professor von Baer, on the other hand, who also made a scientific visit to Novaya Zemlya in the year 1837, read in the preceeding year, before the Imperial Academy of Sciences of St. Petersburg, a "Report of the latest Discoveries on the Coast of Novaya Zemlya", an illustration of a map of that country constructed by a pilot in the Russian navy, named Zivolka; of which report a German translation is published in Berghaus's "Annalen der Erd-Völker- und Staatenkunde."[2]

In this report the learned Professor comes to widely different conclusions from those of Lütke with respect to the identification of the several stations visited by the Dutch; the great point of difference between them being, that Baer bases his arguments almost exclusively on the distances along the western coast of Novaya Zemlya recorded by De

[1] De Veer, p. 99.

[2] Third Series, vol. v (1837-8), pp. 289-330.

Veer, especially in the Table given near the end of his third voyage.[1]

This Table, however, we cannot but regard as little better than a mere *list* of the various stations reached by the Dutch on their return voyage; the distances, and even the bearings, therein recorded, being quite untrustworthy, as may indeed be perceived on the most cursory inspection. Every allowance has, of course, to be made for any inaccuracies that may exist in that Table, in consideration of the circumstances under which the return voyage was made; but, even were we to assume the distances sailed by them in their two small open boats to have been correctly noted down, still there is a sufficient reason for contending that those distances, in themselves, are no sure guide, but, on the contrary, only lead to very erroneous conclusions. For, on a comparison of them with the differences of latitude recorded by De Veer,—which, as being the results of astronomical observations made by so experienced a navigator as Barents was, are subject only to the imperfections of the instruments employed by him,—it will be seen that the former, especially between Langenes and Cape Nassau, are throughout much too small. No reason is given by De Veer for this discrepancy; and, indeed, it would be difficult to account for it, were it not for the fact established by the observations of Admiral Lütke, that a very powerful current from south to north sets along the western coast of Novaya Zemlya as far as Cape Nassau. The velocity of this current was ascertained by that intelligent seaman to be as much as sixty miles per diem,[2] and owing to it he frequently found himself in a latitude from forty-five to fifty-five miles further north than was shown by his dead reckoning.[3] A remarkable confirmation of this fact is afforded by Henry Hudson's journal of his visit to Novaya Zemlya, printed in

[1] Pages 200-203.

[2] Page 147.

[3] Pages 147, 160, 298, etc.

the Appendix to the present work,[1] in which, under the date of 28th June 1608, it is stated that, between eight o'clock on the previous evening and four o'clock in the morning, *they were drawn back to the northwards*, by a stream or tide, as far as they were the last evening at four o'clock. Applying this, then, to the case of our Dutch navigators, we obtain a satisfactory explanation of the apparent discrepancies in their several data.

Having premised thus much, and remarking further that the southern portion of the coast of Novaya Zemlya, and also the northern coast of Russia, require no discussion here, we shall proceed to the investigation of the position of the principal points between Langenes and Cape Nassau, with respect to which a difference of opinion exists. The former point (as has already been stated) is that which was first approached by Barents on his first voyage. On the 4th of July 1794, he found himself, by observation, in latitude 73° 25′, being then about five or six miles west of Langenes, —a low projecting point reaching far out into the sea.[2] This agrees best with the Dry Cape (Trockenes Cap) of the Russian map, which lies in latitude 73° 45′; and Lütke accordingly identifies Langenes with it. Baer, however, contends for Britwin Cape,[3] which, after Dry Cape, is the nearest projecting point of importance. But that cape lies a whole degree further to the south, and would consequently differ as much as 40′ from Barents's observed latitude; and such a difference is more than we are justified in admitting, inasmuch as 15′ or 20′ must be taken as the *maximum* of error.

The next point to be noted is Loms Bay, which is stated by De Veer to lie under 74⅓°;[4] the observation not being further particularized, as in most other cases. This would make its difference of longitude from Langenes to be 55′;

[1] Page 266.
[2] De Veer, p. 11.
[3] Page 305.
[4] Page 12.

whereas, in De Veer's map, the difference is only 20′. Lütke[1] identifies Loms Bay with Cross Bay, though without sufficiently stating his reasons for so doing. Baer[2] follows Lütke's example, saying, however, still less on the subject. The latitude of Cross Bay is 74° 10′ (Lütke says 74° 20′, but this must be an error, as his map shows 10′, as does that also of Ziwolka), making a difference of 25′ from Dry Cape. This would agree with De Veer's map, and might, in this case, constitute a reason for considering the latitude of Loms Bay, as stated by him in his text in so very general a way, less trustworthy than that in his map. De Veer also gives[3] a separate plan of Loms Bay, which neither Lütke nor Baer alludes to, evidently from their not being acquainted with it. On a comparison of this special plan, as also of De Veer's general chart, with the Russian maps, it seems much more probable that Loms Bay is not Cross Bay, but the bay immediately to the south of it. For Cross Bay is, in fact, not a bay, but an extensive inlet, of which the end has not yet been explored, and which is indeed regarded by the best Russian authorities as forming a strait or passage completely across Novaya Zemlya, and communicating with Rosmuislov's Unknown Bay.[4] The Dutch, however, anchored in Loms Bay, went ashore, erected a beacon there, and made a plan of the surrounding country; so that they must assuredly have ascertained whether Loms Bay was a bay or strait. Moreover, they distinctly describe a "great wide creek or inlet"[5] as lying to the north-east of Loms Bay, which is also shown in their plan, and which cannot be any other than Cross Bay itself; and from this alone it would seem to follow that the bay to the south of that inlet must be Loms Bay. Had Lütke made a careful survey of the bay, which he was prevented from doing, and had he also been acquainted with the Dutch plan, he would

[1] Page 21. [2] Page 306. [3] Page 12.

[4] See page xc, *ante*. [5] De Veer, page 13, note 1.

no doubt have been able to set this point at rest. Meanwhile we deem ourselves justified, from what has been adduced, in regarding the Flache Bay of Lütke, or the Seichte Bay of Ziwolka (both terms meaning "Shallow Bay"), as the Loms Bay of the Dutch; and hence Cross Bay will be their "great wide creek or inlet," while Lütke's Cape Prokofyev and Wrangel's Island[1] will be respectively their "Capo de Plantius" and their "small Island seawards from the point."

The Admiraliteyts Eyland of the Dutch[2] is unquestionably the Admiralty Island or Peninsula of the Russians, there not being any other point to the northward which answers to the description. Its latitude is not given; but the Dutch and Russian maps agree satisfactorily.

Capo Negro, or De Swart Hoeck (Black Point), is stated to be in latitude 75° 20′,[3] and answers to the first prominent cape in Lütke's maps, after passing Admiralty Island, which lies in 75° 28′.

Willems Eyland[4] is the Wilhelms Insel of Lütke, and the Bücklige Insel of Ziwolka. For this point the elements of Barents's observation for latitude are given, and they can consequently be checked. It is most satisfastory to find that it differs only 9′ from the latitude given in the Russian maps, the former being 75° 56′, and the latter 75° 47′. This also confirms the probable correctness of the identifications of Admiralty Island and Black Point.

De Hoeck van Nassau, placed by Barents in 76° 30′,[5] can be no other than Lütke's Cape Nassau, in 76° 34′. Not only does the latitude agree within 4′, but likewise its general bearing. There is also another point of correspondence. It was not till the Hollanders reached Cape Nassau that their real difficulties began, especially on the first voyage. This was the most northerly point ever attained by Lütke,

[1] Page 236. [2] De Veer, p. 13. [3] *Ibid.*, p. 14.
[4] *Ibid.*, p. 14. [5] *Ibid.*, p. 16.

and twice did he come within sight of this cape, but without being able to reach it. Adverse winds and currents seem always to prevail here, even in the height of summer. Baer differs, however,[1] from Lütke's opinion, and regards his Cape Nassau as the north-easternmost point of Novaya Zemlya, and identical with either the Ice Cape or Cape Desire of the Dutch, while he places their Cape Nassau much further down towards the south-west, though without being able to fix its precise position. But, for the reasons which have already been adduced, we feel bound to dissent entirely from the learned Professor's conclusions; and we cannot but think that, had he been acquainted with De Veer's original narrative, he too would have seen that Lütke's general identifications cannot well be disturbed.

As regards the north-eastern portion of Novaya Zemlya beyond Cape Nassau, Lütke justly argues[2] that the general accuracy of Barents's coast-line, as far as he has been able to check it,—namely, as far as Cape Nassau,—warrants the assumption that those parts which lie beyond that cape are in a similar degree correct; and, accordingly, he adopts from the Dutch map the entire extent of country to the eastward of Cape Nassau, as laid down in De Veer's chart. This sound conclusion is, however, impugned by Baer,[3] who does not hesitate to erase the whole from his predecessor's map, and to round off the north-eastern extremity of Novaya Zemlya at a short distance beyond Cape Nassau.

Nevertheless, after mature consideration of the entire subject, we are bound to declare that not only do we concur in Lütke's opinion generally, but we must add that no part of the coast of Novaya Zemlya was so thoroughly explored by Barents as just that portion which Baer has thus thought fit to dispute. Barents traced that coast no less than four times, and his observation of the longitude of his winter station, which has now for the first time been accurately

[1] Page 306. [2] Page 302. [3] Pages 302-306.

calculated by Mr. Edward Vogel (assistant at Mr. Bishop's observatory),[1] shows a difference of only about twenty-five miles in the distance between that spot and Cape Nassau, as laid down in Gerrit de Veer's chart:—a result which, as being derived from totally independent data, is conclusive as to the general accuracy of that chart.

Consequently, without waiting for any corroboration to be obtained from future surveys, we deem it perfectly safe to reinsert in our maps the north-eastern portion of Novaya Zemlya, which has been omitted on the authority of Zivolka and Baer. This is a matter not without importance, inasmuch as an extent of at least ten thousand square geographical miles will thereby be restored to the Russian dominions. And we likewise consider it due to the memory of the first and only explorer of this region, that it should bear the specific designation of "Barents's Land," which name is accordingly given to it in the accompanying map. To that portion of Novaya Zemlya which lies between Barents's Land and Matthew's Land, we have further thought that no more fitting appellation can be given than "Lütke's Land," in honour of that able navigator, who has done more for the geography of Novaya Zemlya than any one since the time of Barents.

For a considerable portion of the preceding remarks on the geography of Novaya Zemlya we are indebted to Mr. Augustus Petermann, who has otherwise rendered us much assistance during the progress of our labours, and by whose care the track of Barents on his several voyages has been laid down in the accompanying charts,[2] from the data furnished by Gerrit de Veer's journals. The route from Kildin to Langenes on the first voyage, was found by him to agree precisely with the true distance between the former place

[1] See pages 145-149 of the present work, and the notes there.

[2] It was not thought necessary to reproduce these charts for the present edition.

and Dry Cape ; but the route from Bear Island to the coast of Novaya Zemlya, on the third voyage, from its not being so minutely described, could only be laid down approximately. Those along the more northerly portion of Novaya Zemlya are sufficiently correct, and some of them are exceedingly precise, as has been shown in the preceding pages.

On these voyages a number of soundings were taken in an otherwise unknown sea, the value of which will be appreciated by nautical men. Those to the north of Novaya Zemlya are most important. In about latitude 77° 45′, the highest point reached by Barents, they give a depth of one hundred and fifty fathoms, without bottom ;[1] showing the unlikelihood of the existence of any other land in that vicinity. We feel persuaded that navigators of all nations will concur with us in the propriety of distinguishing the *mare innominatum* between Spitzbergen and Novaya Zemlya by the appellation of "the Spitzbergen, or Barents's Sea," as it is called in Mr. Petermann's chart.

Barents made so many discoveries and traced so large an extent of coast, both of Spitzbergen and Novaya Zemlya, that the surveys of the whole of our recent explorers, put together, are insufficient to identify all the points visited by him. One inference is obvious, namely, that an able, fearless, and determined seaman like Barentz might yet achieve much in those seas. Admiral Lütke was twice prevented by the ice from proceeding beyond Cape Nassau ; but he frequently alludes to the unfitness of his vessel to venture among the ice, and gives it clearly as his opinion, at the end of his work,[2] that better success might be expected from vessels similar to those despatched from England to the Arctic regions.

The ten months' residence of Barents and his companions at the furthest extremity of Novaya Zemlya, has so often formed the subject of comment on the part of writers on

[1] De Veer, p. 20.

[2] Page 360.

Arctic discovery, that we deem it unnecessary to dilate on it here, especially as our other introductory remarks have already extended to so great a length.

There can be no doubt that their stay at this particular spot was a forced one. At the same time, when we bear in mind that, on the second voyage in the year preceding, Barents and his colleague, Harman Janszoon, proposed that two of the vessels should winter in the Sea of Kara; and that, on the fitting out of this third expedition, they took up "as many vnmarryed men as they could, that they might not be disswaded, by means of their wiues and children, to leaue off the voyage;"[1] it will not be unreasonable to infer that they went fully resolved and prepared, if obliged, to winter in those inhospitable regions.

No words are sufficient to extol their exemplary conduct during their long and miserable stay there. Though no means are afforded of determining the precise degree of cold to which they were exposed, various incidents narrated by De Veer prove that it must have been intense; and it was not merely a sharp clear cold, which the experience of other Arctic explorers has shown may be borne to an almost inconceivable degree, but it was accompanied by terrific storms of wind and snow, so that "a man could hardly draw his breath,"[2] and they "could hardly thrust their heads out of the dore."[3] One advantage was however derived from the snow which fell in such quantities as completely to cover up their house, and thereby imparted to it a degree of comparative warmth, without which it is most probable that their residence in it would not have been endurable.

Yet during the whole time perfect order, discipline, and subordination, joined to the greatest unanimity and good feeling, prevailed among them. Scarcely a murmur passed their lips; and when, in the beginning of May, after they had remained shut up more than eight months, and the

[1] De Veer, p. 70. [2] *Ibid.*, p. 111. [3] *Ibid.*, p. 112.

weather had the appearance of favouring their departure, some of the men "agreed amongst themselues to speake unto the skipper (Heemskerck), and to tell him that it was more than time to see about getting from thence";[1] still each man was reluctant to be the spokesman, "because he had given them to understand that he desired to staie vntil the end of June, which was the best of the sommer, to see if the ship would then be loose".[2] And even when at length they "agreed to speake to William Barents to moue the master to goe from thence", De Veer is careful to explain that "it was not done in a mutinous manner, but to take the best counsell with reason and good advice, for they let themselves easily be talked over."[3]

Gerrit De Veer's simple narrative has further an air of unaffected and unostentatious piety and resignation to the will of Providence, which contrasts remarkably with the general tone of Linschoten's works, of which some instances have been given in the preceding pages; and we may perceive that the reliance of himself and his comrades on the Almighty was not less firm or sincere because His name was not incessantly on their lips. Cheerfulness, and even frequent hilarity, could not fail to be the concomitants of so wholesome a tone of mind; and these, joined to the bodily exercise which they took at every possible opportunity, and the labour which they were compelled to perform in preparing for their return voyage, must have been very instrumental in preserving them from sickness.

Still, with all the means employed to keep themselves in health,—and of these warm bathing was no inconsiderable one,—it would be wrong to imagine that they were able to preserve themselves from that dreaded scourge of Arctic navigators, the scurvy. Lutke observes[4] that "it is most remarkable that in the account of their long sufferings this

[1] De Veer, p. 175.
[2] *Ibid.*, p. 176.
[3] *Ibid.*, p. 176.
[4] Page 37.

disease *is not once mentioned*, and that of seventeen men *only two* died in Novaya Zemlya." But it is from having known only the abbreviated translations of Gerrit de Veer's journal that the Russian admiral has been led to view the position of those unfortunate men in this favourable light. For we see from De Veer's narrative,[1] that as early as the 26th of January, 1597, when one of the crew died, he had even then long lain seriously ill: and two days later it is expressly stated,[2] that, from their having "long time sitten without motion, several had thereby *fallen sick of the scurvy*." Indeed, when we consider what they had to undergo for *six months*, during which period we find it positively recorded that they suffered from the scurvy, until on the 28th of July they first met with a remedy,[3]—and how long previously the disease had shown itself among them cannot be said,—it is almost miraculous that *only five* (not two) out of the seventeen should have fallen victims to it.

The tradition of the memorable wintering of the Hollanders in the Ice Haven (Ledyanoi Gávan) is still preserved among the Novaya Zemlya morse and seal hunters, who call the spot where they so resided Sporai Navolok. It is not known however whether any remains of the *Behouden-huis*, or "house of safety", have ever been found.[4]

The most remarkable occurrence during their stay in Novaya Zemlya, was the unexpected reappearance of the sun on the 24th of January, 1597. This phenomenon not only caused the greatest surprise to the observers and their companions, but after their return to Holland gave rise to much controversy among the learned men of the day. Their opinion generally was unfavourable to the truth of the alleged fact, as being "opposed to nature and to reason". Among these was Robert Robertsz. le Canu, "homme fort entendu en l'art de la marine, et qui faisoit profession de l'enseigner aux autres", who wrote a letter on the subject

[1] Page 150. [2] Page 152. [3] Page 224. [4] See Lütke, p. 39.

to William Blaeu, the father of the celebrated John Blaeu, which was published by the latter in his Great Atlas. This letter shall be reproduced here, not merely on account of its giving the objections which were raised at the time, but because it likewise contains some curious matters relating personally to our author and his companions, which it would be wrong to omit.

Mon bon amy Guillaume Jansse Blaeu,

Puisque vous m'avez témoigné desirer que je vous envoyasse un extrait du discours que j'ay eu avec Jacob Heemskerck, Gerard de Veer, Jean Corneille Rijp, et plusieurs autres de mes escoliers, lesquels ayant fait voile en l'an 1596, retournerent en 1597, sans avoir rien effectué touchant la commission qu'ils avoyent de reconnoistre les Royaumes de la Chine, & du Cathay, & dans la mesme année 1597 me vinrent trouver pour me raconter les merveilleuses aventures de leur voyage, entre lesquelles la plus remarquable estoit, que le Soleil leur estoit disparu le IV de Novembre en l'an 1596, & avoyent commencé de le revoir l'an 1597 le 24 de Ianvier, sous la mesme hauteur de 76 degrez, sous laquelle ils avoient basty leur maison dans la Nouvelle Zemble, matiere suffisante, ainsi qu'ils ont escrit, pour exercer long-temps les beaux esprits: & puis qu'outre vostre propre satisfaction vous me conviez encor à vous declarer mon sentiment sur ce sujet par l'advis que vous me donnez des contentions & debats survenus à cette occasion entre tous les sçavans de l'Europe, je veux vous faire un court recit du Dialogue que j'ay eu là dessus avec tous ces Messieurs que j'ay deja nommez, qui avoyent esté spectateurs d'une chose si extraordinaire, & qui me la raconterent avec grand estonnement ; je raisonnois donc avec eux comme il s'ensuit :

Considerant en moy mesme qu'ils avoient passé plus de dix semaines dans un jour perpetuel sans avoir eu aucune nuict, & que pendant un si long espace de temps le ciel n'avoit pas tousjours esté si clair qu'on pût, à la faveur de sa lumière, marquer & compter exactement chaque tour que le Soleil faisoit à l'entour de la terre, je leur demandois s'ils estoient bien asseurez, qu'il fust le IV de Novembre lors qu'ils perdirent de veuë le Soleil, d'autant qu'il estoit en ce temps-là plus de 15 degrez vers le Sud par delà la ligne; ils me respondirent qu'ils avoyent tousjours eu devant eux leurs

horologes, & leurs sables, en sorte qu'ils n'avoyent pas le moindre sujet de douter de cette verité. Je m'enquestay de plus, si leurs horologes, ou leurs monstres, n'avoient jamais manqué, ou s'ils n'avoyent jamais trouvé leurs sables vuides; & voulus outre cela sçavoir d'eux, de combien la Lune estoit âgée lors que le Soleil leur avoit failly: ils demeurerent court à cette interrogation; ce qui me donna lieu de croire qu'ils n'avoyent pas bien compté les jours, & que la supputation qui leur marquoit pour le IV de Novembre, le jour que le Soleil commença à s'absenter d'eux, estoit fausse. Mais supposé, dis-je, que vous ayez si bien rencontré dans vostre calcul qu'il fust alors le IV de Novembre, que mesme vous ayez avec tres-grande justesse compassé tous les jours d'Esté, d'où pouvez vous tirer certaine asseurance de ne vous estre pas mesconté d'un seul jour pendant l'Hyver, que la nuit duroit des onze semaines entieres, puisque vous demeuriez la pluspart du temps comme ensevelis dans vostre maisonnette, & que pour la crainte des extremes froidures, des tourbillons de neiges & des autres rigueures, auxquelles ce climat est exposé durant une si rude saison, vous n'osiez tant seulement mettre le nez dehors, & ne pouviez par consequent voir ny Soleil, ny Lune, ny Estoilles. Gerard de Veer me respondit, qu'ils avoyent perpetuellement veu l'estoille Polaire par le trou de leur cheminée, par où ils avoyent encor remarqué tres-distinctement tous les tours que la grande Ourse faisoit à l'entour de ce Pole; joint qu'ils avoyent tousjours eu devant eux de monstres, des horologes, & des sables, auxquels ils prenoyent tres-soigneusement garde tous les jours. Je ne voulus pas entrer en dispute avec luy là dessus, mais je ne pûs prendre ses raisons pour argent comptant, & je n'en demeuray nullement persuadé, veu mesme qu'en Esté ils estoyent assez empeschez à se defendre de l'attaque des Ours, ainsi qu'ils disoient; & en Hyver souvent occupez à la chasse des renards: de sorte que, selon mon advis, ils n'avoient pas tousjours le loisir de vaquer comme il faut aux observations celestes, ny de gouverner leurs monstres, horologes, & sables avec l'assiduité necessaire, lesquelles, peut-estre, ils ont fort souvent trouvé vuides, ou detraquées par la gelée. Vous croyez donc, Maistre Robert, comme vous nous donnez à entendre par vos raisons, repartit Iacob Heemskerck, que nous nous sommes grandement abusez dans nostre calcul? Je n'ay pas cette croyance là seulement, respondis je, mais de plus une ferme persuasion, que la faute en est si grande, qu'il vous est impossible de sçavoir au vray

si vous estiez pour lors à la fin de Ianvier, ou au commencement de Febvrier: car bienque je leur fisse plusieurs interrogations pour apprendre en quelles parties du ciel ils avoyent veu la Lune, les Planetes & les Estoilles, & par quel moyen ils avoyent pris leurs hauteurs le 24 de Janvier, auquel jour ils disoyent que le Soleil s'estoit monstré à eux, comme aussi pour sçavoir si c'estoit à six heures du soir, ou à minuit, ou le lendemain à six heures du matin, et dans quel rombe cette apparition s'estoit faite, ils ne sceurent neantmoins respondre à aucunes de mes demandes, d'autant qu'en ce temps-là ils avoyent manqué de faire telles observations: c'est pourquoy je conclus, qu'ils s'estoyent bien mespris dans leur compte de la valeur de dix ou onze jours, ou plus. Le lendemain ils accoururent tous chez moy, pour me dire qu'ils sçavoyent bien en quel endroit estoit la Lune le 24 de Janvier, mais je leur respondis que la lecture de quelques doctes Ephemerides les avoit rendu bien sçavans depuis quelques heures, & leur avoit enseigné ce qu'ils ignoroient hier lors que je leur en fis la demande. Gerard de Veer, qui a esté escrivain de la navigation vers le Nord, me tint plusieurs discours aussi mal fondez que les precedents, lesquels je m'estois au commencement proposé de rediger par escrit; mais par apres je ne l'ay pas jugé necessaire, & m'en suis abstenu, par ce qu'il est demeuré ferme dans son opinion, & qu'il a du depuis fait imprimer son Journal, dans lequel il a deduit tout au long cette histoire dans la page 34, & 35, mais escritte en autres caracteres que le reste, afin qu'elle fust plus remarquable,[1] comme on peut voir dans ce mesme livre imprimé à Amsterdam, en l'année 1598, où il escrit, que tres-voluntiers il rendra compte de son dire: mais je n'ignore pas quel est le compte, que Gerard de Veer a rendu & envoyé à Martin Everard de Bruges, demeurant pour lors à Leyde, qui le luy avoit auparavant demandé par lettre escritte à ce sujet; car luy mesme m'a monstré cette lettre, et demandé advis de ce qu'il devoit faire pour le mieux: je luy dis, que tout le conseil que j'avois à luy donner, estoit qu'il reconnut sa faute, & confessast ingenuement, que luy, & toute sa compagnie s'estoyent pû mesprendre de quelques petites journées pendant le grand jour

[1] This observation of Robert le Canu is anything but ingenuous. De Veer's work, the body of which is in German characters, contains several other portions printed with Roman letters, for the sake of distinction on account of their importance; such as the Dedication, the story of the barnacles, etc.

d'Esté qu'ils avoyent eu; & que pendant la longue nuit d'Hyver, ils en avoyent peu laisser escouler quelques petites, sans y prendre garde, pendant lesquelles les insupportables rigueurs du froid les auroit accablez de sommeil: mais toutes mes remonstrances ont esté vaines; car il n'avoit pas mis en lumière son Journal pour le corriger par apres; et jusques à la fin de sa vie il est demeuré dans l'erreur que ses observations estoyent tres-asseurées: & ce Gerard de Veer a bien sceu dans son Journal renfermer 56 jours entre le 24 de Ianvier & le 21 de Mars, dans lequel il escrit que le Soleil estoit pour lors elevé sur leur Horizon de 14 degrez seulement, au lieu que dans le mesme temps de ces 56 jours il devoit avoir monté sur le mesme Horizon à la hauteur de 19 degrez. Je tire cette conclusion de ce que Gerard de Veer a bien sceu faire entrer 13 ou 14 jours de trop dans le mesme espace compris entre le 24 de Ianvier & le 21 de Mars, lesquels il n'a pas craint d'inserer en son Journal, afin de maintenir & d'affermir son opinion, mais il n'a parlé d'aucune declinaison: de sorte que je demeure tousjours ferme dans ma premiere conclusion, à sçavoir, que durant la grande nuit d'Hyver d'onze semaines, le sommeil les avoit pû gaigner si souvent, & si long-temps, qu'il estoit le 6 ou 7 de Febvrier, lors qu'ils ont creu, à cause de leur assoupissement, qu'il n'estoit que le 24 de Ianvier, lesquels jours ils ont expres enfermez entre le 24 de Ianvier et 21 Mars, afin de triompher par leurs belles observations, et d'abuser ainsi les scavans, & leur donner matiere de dispute touchant le Iournal de Gerard de Veer. Je laisse aux autres la liberté de juger ce que leur plaira sur cette affaire, mais je crois que Gerard de Veer ressemble au Sacristain qui fait aller l'horologe, laquelle n'ayant pas une fois sonné l'heure comme le Soleil marquoit, & quelques-uns luy demandant la raison de cette erreur, il respondit que le Soleil pouvoit mentir, mais que son horologe ne mentoit jamais:[1] ainsi il me semble que Gerard de Veer a plustost voulu rejetter la faute sur le Soleil, sur la Lune, & sur les Estoilles, que de confesser pendant sa vie que son calcul estoit faux. Voilà en peu de mots ce que j'ay à respondre sur vostre demande, car je n'ay jamais crû, ny ne puis croire encor à present, que le Soleil, à quelque hauteur qu'il fust le IV de Novembre, pourveu qu'il passast par delà

[1] This sacristan was not quite so flexible as the "Clerke of the Bow bell", immortalized in Stow's *Survey of London* (edit. 1633, p. 269). His duty it was to ring the curfew-bell nightly at nine o'clock; and "this Bel being usually rung somewhat late, as seemed to the young

la ligne 15 degrez vers le Sud, manquast à paroistre sur l'Horizon, et commençast à se monstrer au mesme lieu le 24 de Janvier, eloigné de la ligne de plus de 19 degrez vers le Sud, & se retrouvast justement à la hauteur de 14 degrez sur le mesme Horizon; de façon que ce que Gerard de Veer escrit dans son Journal page 39, contrarie la nature & raison. C'est pourquoy je repete encor, que pendant le grand jour d'Esté ils ont obmis à compter quelques revolutions du Soleil; de mesme que durant la grande nuict d'Hyver le sommeil leur a derobé beaucoup de temps, & qu'ils n'ont pû asseurement dresser leur Journal comme auroient fait ceux qui auroient pû soirs & matins distinguer en jour & en nuict le temps de 24 heures, et compter ainsi nettement & exactement toutes les journées; chose impossible à faire aux Pilotes de la Navigation vers le Nord, & auxquels il faut pardonner en cette occasion; avec cela je finis. Le 15 Septembre, 1627.[1]

From this letter of Robert le Canu it will be perceived, that the fact of the sun's disappearance on the 4th of November 1596 was equally denied by him with that of its reappearance on the 24th of January following. The former, though differing in degree, was, as far as regards the fact itself, deemed not less abnormal and "opposed to nature and to reason" than the latter. It is therefore of importance to demonstrate that the particulars recorded by Gerrit de Veer concerning the sun's latest appearance and final disappearance, are in all respects absolutely and literally true.

men Prentises, and other in Cheape, they made and set up a rime against the Clerke, as followeth:

"Clarke of the Bow-Bell,
with the yellow locks,
For thy late ringing,
thy head shall have knockes.

"Whereunto the Clerke replying, wrote:

"Children of Cheape,
hold you all still,
For you shall have the
Bow-bell rung at your will."

[1] Blaeu, *Grand Atlas*, part i, fol. 34, *b*.

On the 2nd of November, he states that the sun "did not show its whole disk, but passed in the horizon along the earth." On that day, in latitude 75° 45′ (which was their true position, and not 76° as they supposed), the sun's declination was—14° 53′,3; and the complement of the elevation of the Pole being 14° 15′, the sun's centre was actually 38′,3 below the horizon. But, with an assumed temperature of—8 Fahr., the refraction would have been as much as 39′,3; and, as "the land where they were was as high as the round-top of their ship", an assumed height of thirty feet would give 5′,4 for the dip of the horizon. Hence, according to theory, 6′,4 more than the half of the sun's disk should have been visible; that is to say, 22′ or 23′, or about seven-tenths of the entire disk. Consequently De Veer's statement in this respect is literally true. On the following day the sun's centre was actually 56′,9, and its upper edge about 40′,9, below the horizon. But the refraction 39′,3 and the dip 5′,4, would have raised it 44′,7 to the sight; so that 3′,8 or nearly twelve-hundredths of the sun's disk ought still to have been visible. De Veer speaks therefore the pure truth when he says that, on the 3rd of November, "they could see nothing but the upper edge of the sun above the horizon."[1] On the day afterwards the sun's declination was 15° 30′,5, and consequently its centre was 1° 15′,5, and its upper edge 59′,5, below the horizon. And taking the sum of the refraction and the dip at 44′,7, the sun's

[1] On this day De Veer says that they measured the sun's azimuth (de son peijlden), which they found to be "in the eleventh degree and 48 minutes of Scorpio", that is to say, in 221° 48′. It would seem, however, that there are here two mistakes. The first is a clerical or typographical error. Instead of 221° 48′, it should be 221° 18′, which was the sun's longitude *at Venice* on the 3rd of November. And the second error is, that no account is taken of the difference of longitude between Venice and Novaya Zemlya, which is about four hours in time. The sun's true longitude was 221° 7′,6.

upper edge would have been actually $14'_{,8}$ below the visible horizon. Strictly in accordance with this, we have De Veer's statement on the 4th of November, "but that we saw the sunne no more, for it was no longer aboue the horizon".

Had Gerrit de Veer and his companions been weak enough to give way to the dogmatical assertion of their teacher, that "pendant le grand jour d'esté ils avoyent omis à compter quelques revolutions du soleil", they might perhaps at the time, and during the two centuries and a half which have since elapsed, have enjoyed some little more credit than has been accorded to them; but they would eventually have deprived themselves of that triumphant vindication of their character for perfect truthfulness and sincerity which it is our good fortune to be the means of now affording to them.

The reappearance of the sun on the 25th of January 1597, is not, at least for the present, capable of so complete and satisfactory an explanation. But hitherto the subject has never been properly understood, because the facts have never been correctly stated. One of the most recent examinations of this phenomenon is that made by the Rev. George Fisher, in his remarks "On the Atmospheric Refraction," contained in the "Appendix to Captain Parry's Journal of a Second Voyage, etc., published in 1825.

Mr. Fisher's words are:—"The testimony of De Veer, who wrote the particulars and who accompanied Barentz to Nova Zembla in his third voyage, where he wintered in latitude 76° N., in the year 1596-7, has been so often called in question, with respect to his account of the re-appearance of the sun, that it is but justice to state that he appears to be perfectly correct, and his observations consistent with those made during this voyage.[1] He reports that he, in

[1] Namely, that of Captain Parry.

company with two others, saw the edge of the sun from the sea side, on the south side of Nova Zembla, on the 24th of January (or the 3rd of February, new style) at which time the sun's declination when it passed the meridian in that longitude was about 16° 48′ S., and therefore the true meridian depression of the upper limb at noon was 2° 32′ nearly, which ought to have been the amount of the refraction [so] that the limb might have been visible. Now, if the observation at the least apparent altitude observed on the 23rd January, 1823, at Igloolik, which was 8′ 40″, be reduced to the horizon, by observing the rapid law of increase in the refraction visible in the series of observations made on that day, the horizontal refraction cannot be estimated at less than 2° 30′, and which, if increased by the apparent dip (which sometimes amounts to more than 20′ in the winter time, as I have mentioned when speaking of the terrestrial refraction), will be quite sufficient to render the upper limb visible; and there is still less difficulty in believing that they 'saw the sunne in his full roundnesse above the horizon' three days afterwards, since the daily motion in declination at that time of the year is nearly 18 minutes to the northward.

"M. Le Monier, from the observations made on these two days, assures us that there must have been more than $4\frac{1}{2}$ degrees of refraction, and that he 'could neither explain these observations, reject them as doubtful, nor suppose any error, as was done by most other astronometers.' How this conclusion has been deduced from the facts related in the Journal does not appear, neither is there the least occasion to reject as doubtful the simple and honest account of the Dutchmen."

Now the facts of the case are in reality as follows:— In the first place, the Dutch reckoned their time according to the *new* style, which had already been adopted in the Netherlands. This is not only to be deduced from

the correspondence of their several astronomical observations with this reckoning alone; but it also admits of direct proof from the express statement of William Barents, in his note on the tides at States Island, that the dates were "*stilo novo.*"

In the next place, Gerrit de Veer states explicitly that he and two of his companions "saw the edge of the sun" on the 24th of January, and that on the 27th of that month they "all went forth and saw the sunne in his full roundnesse a little aboue the horrison"; and again, that on the 31st they "went out and saw the sunne shine cleare"; and lastly, on the 8th of February, they "saw the sun rise south south-east, and went down south south-west." On the intervening days, the weather being cloudy or otherwise unfavourable, they had no opportunity of observing the sun.[1]

Now, according to theory, the sun's upper edge ought not, in 75° 45′ north latitude, to have been visible till the 9th of February; so that on the 25th of January (not the 24th, as De Veer erroneously supposed), at mid-day, the extraordinary and anomalous refraction was as much as 3° 49′, and on the 27th of that month it could not have been much, if at all, less. On the 8th of February, however, when they "saw the sun rise S.S.E. and go down S.S.W.", the entire refraction would have been 2° 10′,7, which is about one degree and a half more than according to theory it ought to have been; and on the 19th of the latter month,

[1] "The 25th of January it was darke clowdy weather"; the 26th there was "a fog-bank or a dark cloud"; the 29th, "it was foule weather, with great store of snow"; the 30th, "it was darke weather with an east wind," and "as soone as they saw what weather it was, they had no desire to goe abroad"; the 1st of February, "the house was closed up againe with snow"; the 2nd, "it was still the same foule weather"; the 3rd, it was "very misty, whereby they could not see the sun"; and from the 4th till the 7th inclusive, "it was still foule weather".

when they took the sun's height, the refraction had again attained its normal amount.

Without attempting any explanation of the phenomenon thus described, what we have now to do is to show that Gerrit de Veer and his companions could not possibly have been materially in error with respect to their dates.

Commencing then from the 4th of November, when it has been demonstrated that their time was strictly correct, we have their subsequent astronomical observations on December 14th and January 12th, which establish that till the latter date they were still right in their time. If, therefore, they lost their reckoning at all, it must have happened between the 12th and the 25th of January—an interval of *only thirteen days*; and certainly neither their oversleeping themselves (assuming them to have done so), nor any error, however great, in the rate of their twelve hours' sand-glass, could in that short interval have occasioned any gross miscalculation with respect to the time of a phenomenon which extended over a period of fourteen days. Then again, on the 19th of February, and also on the 2nd of March, they obtained by similar astronomical observations the means of checking their time; so that it is utterly impossible for them to have fallen into any material error. The mistake of *a few hours*, which caused them to place the conjunction of the moon and Jupiter, and consequently the reappearance of the sun, on the 24th instead of the 25th of January, is only an additional proof in favour of their general correctness, as it is just such an error as they were likely to fall into from their inability to measure their time with strict precision.

But the fact of the conjunction itself has yet to be noticed. De Veer tells us that they had watched the approach of the two planets to each other, till at length they came together in a certain direction and at a certain time; and that con-

temporaneously with this occurrence the sun reappeared. Now there was no other conjunction of those two planets till $27\frac{1}{4}$ days later, namely, at noon on the 21st of February, and at that date the sun had been at least nine days above the horizon; besides which, the conjunction would not have been visible, on account of the daylight. Consequently, if the conjunction on the 25th of January is not intended, the whole account must be an invention and a fabrication. And to suppose this would assuredly be imputing to De Veer, not only more deceit, but also very much more skill than he possessed. For, even assuming him to have been capable of calculating the place of Jupiter and the time of that planet's setting, he would have found (as Mr. Vogel has now found) that at the time of the conjunction that planet had already set 1 hour and 48 minutes, and was at the time actually 2° 44′ below the horizon; and it is altogether too much to suppose that he would have adduced a conjunction, *which according to calculation was invisible*, as evidence of another phenomenon which was equally opposed to the recognized laws of nature.

We have therefore no alternative but to receive the facts recorded by De Veer as substantially true, and to believe that owing to the peculiar condition of the atmosphere, there existed an extraordinary refraction, not merely on the 25th of January, but continuously during fourteen days afterwards, at first amounting to nearly four degrees, but gradually decreasing to about one degree and a half.

The true facts of the case having at length been clearly made out, they are left for elucidation by those who are best qualified to investigate and explain them. The problem is a curious, and, with our still insufficient knowledge of the laws of atmospheric refraction in high latitudes, a difficult one. Nevertheless we may confidently rely on the result

being such as eventually to establish the entire veracity of our Dutch historian.[1]

With respect to the personal history of Gerrit de Veer we know almost nothing. From his familiar allusion to "the salt hills that are in Spaine", it is to be inferred that he had visited that country at some time previously to the year 1595, when he joined Barents's second expedition. From Robert le Canu's letter we learn that he had studied navigation under him, and also that his death occurred some time previously to the year 1627, when that letter was written. The position of his name in the two lists of the crew of Heemskerck's vessel, between those of the first mate and the surgeon, shows that he was one of the officers —probably the second mate; and we learn incidentally that he was a small man, "being the lightest of all their company". More than this we know not.

Of the various editions, abridgments, and summaries of De Veer's work, we have collected the following particulars.

The first printed account of these interesting voyages was published in Dutch at Amsterdam in the year 1598, under the following title:—

Waerachtighe Beschryvinghe van drie seylagien, ter werelt noyt soo vreemt ghehoort, drie jaeren achter malcanderen deur de Hollandtsche ende Zeelandtsche schepen by noorden Noorweghen, Moscovia ende Tartaria, na de Coninckrijcken van Catthay ende China, so mede vande opdoeninghe vande Weygats, Nova Sembla, eñ van't landt op de 80. gradē, dat men acht Groenlandt tezijn, daer noyt mensch gheweest is, ende vande felle verscheurende Beyren ende ander Zeemonsters ende ondrachlijcke konde, eñ hoe op de laetste reyse tschip int ys beset is, ende tvolck op 76. graden op Nova Sembla een huijs ghetimmert, ende 10. maenden haer aldaer onthouden hebben, ende daer nae meer als 350. mylen

[1] Some valuable remarks on this phenomenon are contained in Lütke's *Viermalige Reise*, pp. 39-41.

met open cleyne schuyten over ende langs der Zee ghevaren. Alles met seer grooten perijckel, moyten, ende ongeloofelijcke swaricheyt. Gedaen deur Gerrit de Veer van Amstelredam.

Ghedruckt t'Amstelredam, by Cornelis Claesz, op't water, int Shrijf-boeck. A°. 1598. Oblong 4°.

This rare and valuable book, a copy of which is in the British Museum, does not appear to have been hitherto noticed by bibliographers. It contains sixty-one numbered leaves, in addition to the Dedication on two leaves not numbered, six maps by Baptista à Doetechum, and twenty-five plates, which are coloured. The title-page also bears a plate, in eight partitions, four of which contain reductions from plates in the volume.

The following is a translation of Gerrit de Veer's Dedication.

To *the Noble, Mighty, Wise, Discreet, and very Provident Lords, the States General of the United Netherlands, the Council of State, and the Provincial States of Holland, Zeeland and West Friesland; and also to the most illustrious Prince and Lord, Maurice, born Prince of Orange, Count of Nassau, Catzenellenbogen, Vianden, Dietz, etc., Marquis of Vere and Flushing, etc., Lord of St. Vyt, Doesburg, the city of Grave, and the countries of Kuyet, etc., Stadtholder and Captain-General of Gelderland, Holland, Zeeland, West Friesland, Utrecht, and Overyssel, and Admiral of the sea; and to the Noble, Honorable, Wise, and Discreet Lords, the Commissioners of the Admiralty in Holland, Zeeland, and West Friesland.*

My Lords: the art of navigation, which in utility surpasses nearly all other arts, has now in these latter years and within the memory of man been wonderfully improved, and has more especially contributed to the welfare of these States. This has been mainly the result of the skilful use and practice of navigation, and of the measurement of the latitudes and bearings of countries according to the rules of mathematical science; whereby countries lying on the very confines of the world have been reached, and their products imported for our use. Thus this child of Astrology has

proved of greater service on the ocean than on land; for, there it is merely a science, whereas here its usefulness is so much extended, that various bearings, courses, headlands, and promontaries unmentioned by Ptolemy and Strabo, and unknown for a long period after that time, have now become known by the investigations and experiences of this science. And as many previously unknown places were not found till after repeated search, so now three unsuccessful trials have been made from these States to find a passage round by the north to the kingdoms of Cathay and China; which although hitherto unsuccessful, have not been altogether useless, nor have they shown the attempt to be hopeless. For these reasons I have drawn up a brief description of the three aforesaid voyages (in the last two of which I myself was engaged), which were made from these States by the north of Norway, Muscovy, and Tartary, towards the aforesaid kingdoms of Cathay and China. And I have done so because many interesting circumstances happened in those voyages, and because I think that the right course may still be discovered; inasmuch as the direction and position of Vaygatz and Nova Zembla, and also the eastern part of Greenland (as we call it) in 80°, are now ascertained, where it was formerly thought there was only water and no land; and because there in 80° it was less cold than at Nova Zembla in 76°, and in 80° aforesaid, in June early in the summer, plants and grass were growing and beasts that feed on grass were found, while on the contrary in 76°, in August in the hottest of the summer, there were found neither plants nor grass, nor animals that feed on grass. From all which it appears that it is not the proximity of the Pole which causes the ice and cold, but the Sea of Tartary (called the Frozen Ocean), and the proximity of the land, round about which the ice remains floating. For, in the open sea between the land situated in 80 degrees and Nova Zembla, which lie at a distance of full 200 [800] miles E.N.E. and W.S.W. of each other, there was little or no ice; but as often as we approached land we immediately fell in with the cold and the ice. Indeed, it was by means of the ice that we always first perceived that we were near land before we saw the land itself. At the east end of Nova Zembla also, where we passed the winter, the ice drifted away with a W. and S.W. wind, and returned with a N.E. wind. Hence it certainly appears, that between the two lands there is an open sea, and that it is possible to sail nearer to the Pole than has hitherto been believed; and this notwithstanding

that ancient writers say that the sea is not navigable within 20 degrees of the Pole because of the intense cold, and that therefore nobody can live there; whereas we have both been as far as 80 degrees, and in 76 degrees have with small means passed the winter; and thus it appears that the said passage may be effected between the two above-named countries by taking a N.E. course from the North Cape in Norway. This too was the opinion of the renowned pilot Willem Barentsz., as well as of Jacob Heemskerck, our captain and supercargo, who would have dared to undertake it by keeping that course, its accomplishment being left to God's mercy. Yea, notwithstanding that on our last voyage, through our manifold difficulties, we were entirely exhausted and ofttimes in peril of death, yet our courage was not so broken but that if our ship (which became fast in the ice) had been set free a little sooner, we would once more have made the attempt in that direction, as a proof that we believed the passage might thereby have been effected; although this last voyage had been very troublesome, wherein we (speaking without vanity) made no account either of labours, difficulties, or danger, in order to bring it to a successful end, as will appear from the relation thereof; but neither the time nor the opportunity permitted it. And as the aforesaid three voyages were made through the gracious assistance of your Lordships, and thus the fruits which may still result from them belong to your Lordships, I have taken the liberty of dedicating to you this narrative, which, if not an eloquent, is at least a faithful one.

Praying to God that he will bless with success the government of your Lordships, in honour of his name, and for the welfare of these States,

Your noble, mighty, illustrious,
wise, and provident Lordships'
obedient servant,
GERRIT DE VEER.

From Amsterdam, the last day but one of April, in the year 1598.

Stuck, in his *Verzeichnis von aeltern und neuern Land und Reise-beschreibungen*, mentions an edition of De Veer's work[1]

[1] De Veer's work has seen three editions—1598, 1599, and 1605, at the same press. The text, as well as the plates of the edition of 1599, are reprinted, whilst the pages are better numbered. (Mémoire Biblio-

in 1599; but this appears to be purely an error in date,—1599 for 1598,—as he leaves it to be inferred that he alludes to the first edition. It was reprinted at Amsterdam in 1605, at the same press.

Another edition was brought out, as the first part of a collection of early Dutch voyages at Amsterdam, with the following title :—

Oost-Indische ende Uvest-Indische voyagien, Namelijck, De waerachtighe beschrijvinge vande drie seylagien, drie Jaren achter malkanderen deur de Hollandtsche ende Zeelandtsche Schepen, by noorden Noorweghen, Moscovien ende Tartarien nae de Coninckrijcken van Catthay ende China ghedaen.

Tot Amsterdam. By Michiel Colijn, Boeck-verkooper, op't Water, in't Huys-boeck, aen de Kooren-marckt. 1619. Oblong 4to.

This edition contains eighty numbered leaves. De Veer's Dedication is omitted. The plates are copies from those in the former editions, but smaller and reversed. The colophon reads :—

Ghedruckt tot Enchuysen, by Jacob Lenaertsz.Meyn, Boeckvercooper op de Nieuwe straet int vergulden schrijfboeck. Anno 1617.

Latin. In the same year that the first edition of these voyages was published in Dutch, viz., 1598, a Latin translation was brought out at Amsterdam by the same publisher. The translator signs himself C. C. A., and dates his preface, Leyden, July 7th ("nonis Julij") 1598; thereby showing that little more than two months had elapsed since the appearance of the original work. It bears the following title :—

Diarivm Navticvm, seu vera descriptio Trium Navigationum admirandarum, & nunquam auditarum, tribus continuis annis factarum, à Hollandicis & Zelandicis navibus, ad Septentrionem, supra Norvagiam, Moscoviam & Tartariam,

graphique sur les Journaux des Navigateurs Neerlandais 1867, par P. A. Fiele.)

versus Catthay & Sinarum regna: tum ut detecta fuerint Weygatz fretum, Nova Zembla, & Regio sub 80. gradu sita, quam Groenlādiam esse censent, quam nullus unquam adijt: Deinde de feris & trucibus vrsis, alijsque monstris marinis, & intolerabili frigore quod pertulerunt. Quemadmodum præterea in postrema Navigatione navis in glacie fuerit concreta, & ipsi nautæ in Nova Zembla sub 76. gradu sita, domum fabricarint, atque in ea per 10. mensium spatium habitarint, & tandem, relictâ navi in glacie, plura quam 380. milliaria per mare in apertis parvis lintribus navigarint, cum summis periculis, immensis laboribus, & incredibilibus difficultatibus. Auctore Gerardo de Vera Amstelrodamense.

Amstelredami, ex Officina Cornelij Nicolaij, Typographi ad symbolum Diarij, ad aquam. Anno M.D.XCVIII. Folio.

This edition contains forty-three numbered leaves, and has the same plates and maps as the Dutch edition; but the Dedication is omitted. A copy is in the British Museum.

French. In the same year, and probably near the same time as the preceding edition, appeared a French translation under the following title:—

Vraye Description de trois Voyages de mer tres admirables, faicts en trois ans, a chacun an vn, par les navires d' Hollande et Zelande, av nord par derriere Norwege, Moscovie, et Tartarie, vers les Royaumes de China & Catay: ensemble les decouvremens du Waygat, Nova Sembla, & du pays situé souz la hauteur de 80 degrez; lequel on presume estre Greenlande, où oncques personne n'a esté. Plus des Ours cruels & ravissans, & autres monstres marins: & la froidure insupportable. D'avantage comment a la dernicre fois la navire fut arrestee par la glace, & les Matelots ont basti vne maison sur le pays de Nova Sembla, situé souz la hauteur de 76. degrez, où ils ont demeuré l'espace de dix mois: & comment ils ont en petittes barques passé la Mer, bien 350. lieues d'eaue; non sans peril, a grand travail, & difficultez incroyables. Par Girard Le Ver.

Imprimé a Amstelredam par Cornille Nicolas, sur l'eaue, au livre à écrire. Anno M.D.XCVIII. folio.

This edition contains forty-four numbered leaves, and the same plates and maps as the original Dutch edition. There is a copy in the Grenville Library. It was reprinted in 1600 and in 1609. There is a copy of the edition of 1609 in the

British Museum, in which the same plates and maps occur as in the first Dutch edition.

An edition in 8vo. was published at Paris by Chaudière in 1599, under the title of "Trois navigations admirables faites par les Hollandois et les Zélandois au Septentrion."

Italian. An Italian translation, which was made at the instance of Gioan Battista Ciotti, by whom it is dedicated to Gasparo Catanei, appeared at Venice in 1599, in Italic characters. Its title runs thus:—

Tre Navigationi fatte dagli Olandesi, e Zelandesi al Settentrione nella Norvegia, Moscovia, e Tartaria, verso il Catai, e Regno de' Sini, doue scopersero il Mare di Veygatz, La Nvova Zembla, et vn Paese nell' Ottantesimo grado creduto la Groenlandia. Con vna descrittione di tvtti gli accidenti occorsi di giorno in giorno a' Nauiganti, Et in particolare di alcuni combattimenti con Orsi Marini, e dell' eccesiuo freddo di quei paesi; essendo nell' ultima Nauigatione restata la Nane nel ghiaccio, onde li Marinari passorono infinite difficoltà, per lo spatio di diece mesi, e furono forzati alla fine di passare con li Batelli trecento miglia di Mare pericolosissimo. Descritte in Latino da Gerardo di Vera, e Nuouamente de Giouan Giunio Parisio Tradotte nella lingua Italiana.

In Venetia, presso Ieronimo Porro, e Compagni. 1599. 4to.

It contains seventy-nine leaves, with copies of the usual maps and plates, but badly executed.

This was reprinted in the third volume of the 1606 edition of Ramusio's *Navigationi et Viaggi.*

English. The only other language, as far as we are aware, into which De Veer's work has been translated, is English; the first and only edition of which translation, now extremely scarce, is that reproduced in the present volume.

ABRIDGEMENTS.

German. The first and most important German edition of De Veer's narrative was an abridgement, published at Nuremberg by Levinus Hulsius, the dedication of which

bears date the 10th of August, 1598, being little more than three months after that of the original Dutch work. Its title runs thus :—

Warhafftige Relation der dreyen newen vnerhörten seltzamen Schiffart, so die Holländischen vnd Seeländischen Schiff gegen Mitternacht, drey Jar nach einander, als Anno 1594, 1595 vnd 1596 verricht. Wie sie Nortwegen, Lappiam, Biarmiam, vnd Russiam, oder Moscoviam (vorhabens ins Königreich Cathay vnd China zukommen) vmbsegelt haben. Als auch wie sie das Fretum Nassoviæ, Waygats, Novam Semblam, vnd das Land vnter dem 80. Gradu latitud. so man vermeint das Groenland sey, gefunden : vnd was für gefahr, wegen der erschröcklichen Bern, Meerwunder, vnd dem Eyss, sie aussgestanden. Erstlich in Niderländischer sprach beschrieben, durch Gerhart de Ver, so selbsten die lezten zwo Reysen hat helffen verrichten, jezt aber ins Hochteutsch gebracht, Durch Levinum Hulsium. Noribergæ, Impensis L. Hulsij. Anno 1598. 4to.

Translator's dedication two pages. Preface twelve pages. An address to the reader, headed and subscribed "Gerardus de Veer," four pages. Text one hundred and forty-six numbered pages. Thirty-five plates and maps. The colophon reads :—

Gedruckt zu Nürnberg, durch Christoff Lochner, In verlegung Levini Hulsii, anno 1598.

It was re-issued in the year 1602, as the "Dritter Theil" of Hulsius's celebrated collection of voyages. This is, however, merely a duplicate of the edition of 1598, excepting the first sheet, which has been reprinted, apparently with the view of affording Hulsius an opportunity of alluding, on the fourth page of his Preface, to the publication of the beautiful book ("schones Buch") of Linschoten the year before. The dedication is dated Nuremberg, 6th February.

A "secunda editio," considerably abridged, appeared from the same press in the same year (1602), with the dedication dated Frankfort, 1st August : the text of this extends only to one hundred and twenty-one pages, and the address to

the reader and colophon are omitted. In his dedication, Hulsius informs us, as a reason for this rapidity of republication, that upwards of 1,500 copies of the former edition had already been disposed of, and that the demand for the work was still very great.

A third and fourth edition, yet further abridged, and similarly forming the "Dritter Theil" of Hulsius's collection, appeared respectively in the years 1612 and 1660.

Copies of all these editions are in the Grenville Library in the British Museum.

This work of Hulsius enjoys a degree of credit among bibliographers, to which intrinsically it would hardly seem to be entitled. On the title-page, and also in the publisher's dedication, it professes to be a *translation* from the Dutch of Gerrit de Veer. But it is neither this, nor is it a true and genuine *abridgement*. On the contrary, copious omissions are made throughout, while at the same time passages are frequently introduced, which are not to be found in the original. It would be an almost endless task, and one quite out of place here, to attempt a collation of the two works. Still it is expedient that a specimen should be adduced of the liberties which Hulsius has taken with his author; and for this purpose the commencement of his narrative of the second expedition (pages 16-18) shall be given *verbatim*.

Im Jar nach unserer Erlösung 1595, sein von den Unirten Ständen in Holl und Seeland, &c., und dem Durchleuchtigen Hochgebornen Fürsten und Herren, Herren Mauritz, Grafen zu Nassaw, &c., siben Schiff vorhabens, damit den Weg durch Waygats, und das Fretum Nassoviæ, nach Cathay und China zufinden, zugerüstet worden: zwey zu Amsterdam, zwey in Seeland, zwey zu Enckhausen, und einss zu Roterdam. Deren sechs mit allerley Kauffmanns Wahren, unnd mit Geld beladen gewest, das sibende aber, war ein Pinasse, welche befehl hatte, wann die andern sechs Schiffe, umb den Capo oder Promontorium Tabin (so dass eusserste Eck der Tartarey gegen Mitternacht ist) gefahren weren, dass er als dann also bald wider nach Holland ūm-

wenden und von den andern Schiffen zeittung bringen solte.

Das Admiral Schiff war ein Boyer, von Middelburg, genandt der Greiff, vermöchte 80 Last, das ist 3200 Centner ein zu laden, hatte 22 Stuck Eysern Geschütz, so Kügel 5 oder mehr pfunden geschossen, auch zehen Mörser oder Pöler, und sein auff disem Schiff 64 Mann gewesen.

Sein Jacht Schiff war ein Flieboot von Armuien in Seeland von 25 Last, oder 1000 Centner, darauff waren 8 stück, so 2 oder 3 Pfund Eysen schossen, 4 Mörser, und 18 Mann.

Das Vice Admiral Schiff war von Enckhausen auss Holland, 96 last gross, das man mit 3840 Centnern belagen können, und *Spes* oder die Hoffnung genannt, darauff 24 stück Eysern Geschütz, so ungefehrlich 5 pfund Eysen geschossen, zween Mörser, und 58 Mann.

Sein Jacht Schiff war von Enckhausen von 28 Last, genandt die Jacht von Glück unnd unglück, darauff waren sechs Eysene stück, 4 Mörser, und 15 Mann.

Das Schiff von Amsterdam war ein Pinasse, auff 160 Last, oder 6400 Centner, genennet der Gülden Windhund, dar auff vier metallene Stück, deren jedes 45 pfund Eysen schoss, 32 Eyserne Stück, zu 5 und 6 pfunden, am vordersten theil dess Schiffs waren zwo Schlangen, die 38 pfund schossen, und 12 Mörser, auch 6 Trommeter, und andere Spiel: etliche Diamant schneider, Goldarbeyter, auch andere mehr Ambtleut, oder abgesandte der Stände, nñ 80 Schiffknecht, und also in allem 108 Mann. In disem Schiff war der wolerfahren Wilhelm Barentz Oberster Pilot oder Stewrmann, und Jacob Hembsskirch Oberster Commisari. Auff disem bin ich Gerhart de Veer auch gewesen.

Sein Jacht Schiff war auch von Amsterdam, genandt S. Moritz, auff 27 Last gross, darauff 6 Eysene stück, 5 Mörser, und 13 Mann.

Das Schiff Roterdam war ein Pinasse, auf 39 Last, oder 1560 Centner, genandt S. Peters Nachen, darauff 6 Eysene Stück, und 8 Mörser gewesen.

Dise Schiff alle waren versehen mit allerley Proviant und Kriegs munition auff zwey Jar, aussgenommen Roterdam, so allein auff 6 Monat Proviantirt, auss ursach dass es widerumb solte zu Ruck kommen, wie gesagt.

Anno 1595 den 12 Junij, sein wir von Amsterdam nach Texel, da alle Schiff solten zusamman-komen, gesegelt.

Den 2 Julij nach Mittag, da der Wind Sudost, und gut für uns war, namen wir unsern Cours in dem Namen Gottes gegen Nordwest zum Nord.

Den 5 dito, dess Morgens sahen wir Engelland.

Den 6 dito, war gross ungewitter auss N.O.

Den 12 hatten wir guten Wind, nach Mittag sahen wir viel Walfisch, unnd theils unserm Schiff so nahe, das man auff sie hette springen können, die am Stewrruder stunden, hetten zu thun genug das Schiff von den Walfischen hinweg zu steuren.

Den 15 dito sahen wir das Land Nordwegen.

A comparison of the foregoing with Phillip's translation in pages 42-44 of the present volume, will at once show how widely Hulsius's version differs from the original text of Gerrit de Veer.

From the use made of De Veer's name in the "Address to the Reader," it might at first sight be imagined that Hulsius was in communication with the author, and had his authority for the interpolated passages; though, seeing that Latin and French versions, corresponding strictly with the original Dutch text, were being simultaneously published at Amsterdam, it would certainly be difficult to conceive that De Veer should have lent himself to a work so different in character as this German version. However, on a closer examination, it is apparent that this "Address," notwithstanding that it is made to bear De Veer's signature, with the date "Penult. Aprilis Anno 1598,"—which is that of the author's original Dedication to the States General and other authorities of the United Provinces, of which a translation has been given in pages cxix-cxxii,—is merely made up from that dedication and from the introductory portion of the author's narrative of the first voyage. And, indeed, Hulsius himself does not pretend to do more than give a translation into German from the original Dutch work; his words being, "Hab ich auch dise drey letzte Schiffarten gegen Mitnacht, *so bald sie mir in Niderlandischer sprach zukommẽ*, ins hochteutsch versetzt;" so that his use of the author's name in the way adverted to is manifestly unjustifiable, and in fact nothing better than a fraud on the public.

The foregoing specimen of the differences between the

two works has purposely been taken from the commencement of the narrative of the *second* expedition, because we have the independent authority of Linschoten to fall back upon; in whose work nothing is found to warrant the interpolations on the 5th and 12th of July, and whose official description of the vessels composing that expedition—which forms the basis of the statement made in previous pages of the present Introduction,—differs materially from that given by Hulsius.

It is scarcely to be doubted that the latter had an authority of some sort for these important variations; though had that authority been at all of an authentic nature, there is no conceivable reason why he should not have referred to it. On a consideration of the whole case, we are inclined to believe that he was desirous of imparting to his production the character of an original work; and hence these variations in the text, and also the fact that most of his illustrations are not copies, but free imitations of the plates in the original Amsterdam editions.

Before quitting this subject, which is perhaps not undeserving of a closer investigation, we may adduce a curious instance of erroneous translation on the part of Hulsius. In the introduction to the narrative of the second voyage (page 40 of the present work), De Veer speaks of Linschoten as having been on the first voyage the commissary or supercargo of the two ships of Zeeland and Enkhuysen—"daer Jan Huyghen van Linschoten *comis* op was." This is rendered by Hulsius (p. 14): "darauff der Hocherfahrne in Schiffsachē Johañ Huyghen von Linschott, *Comes* oder Oberster gewesen war," as if Linschoten had actually been the commander of those two vessels!

Another German abridgement of De Veer's narrative was made by the brothers De Bry, in 1599, and is given as the third article in the third part of their *India Orientalis* (or that portion of their collection commonly known as the

Petits Voyages), on the collective title of which it is described as follows :—

Drey Schiffahrten der Holländer nach obermeldten Indien durch das Mittnächtigsche oder Eissmeer darinnen viel vnerhörte Ebentewer. Sampt Vielen schönen künstlichen figurn vnd Landtafeln in Kupffer gestochen vnd an Tag geben durch Jo. Theodor vnd Jo. Israel de Bry, Gebrüder. Gedruckt zu Franckfurt am Mayn durch Mattheum Becker. M.D.XCIX. folio.

It is from this German edition that the plates which accompany the present volume have been taken. They are copies from those of the original Amsterdam editions, reversed and more artistically finished. De Bry, doubtless having Hulsius's work in his mind, says of them that they are: "Alles zierlich und *nach dem aechten original* fürgetragen."

This abridgement was reprinted in the German editions of De Bry in 1628 and 1629.

Latin. The same abridgement was also given in Latin by De Bry, in the edition of the *India Orientalis* of 1601, on the collective title of the third part of which it is thus described :—

Tres nauigationes Hollandorum in modò dictam Indiam per Septentrionalem seu glacialem Oceanum, vbi mira quædam et stupenda denarrantur.

The sub-title, at page 129, is as follows :—

Tertia pars, Navigationes tres discretas, trib. continvis annis per Septentrionem supra Norvegiam, Mvscoviam et Tartariam, freto Weygatz & Noua Zembla detectis, ab Hollandis & Zelandis in Cathay & Chinarum regnum versus orientem susceptas, describens.

This abridgement was reprinted in 1629, also as the third article in the third part of De Bry's *India Orientalis*.

English. In the third volume of Purchas's collection, pp. 473-518, is given a faithful abridgement of Phillip's translation.

ABSTRACTS OR SUMMARIES.

Latin. An abstract of De Veer's work was given in Linschoten's—

Descriptio totius Guineæ tractus, Congi, Angolæ, et Monomotapæ, eorumque locorum, quæ e regione C. S. Augustini in Brasilia jacent, etc. Accedit noviter historia navigationum Batavorum in Septentrionales Oras, Polique Arctici tractus, cum Freti Vaygats detectione summa fide relata.

Hagæ-Comitis. Ex officinâ Alberti Henrici. Anno 1599. folio.

The narrative of the Three Navigations to the North, which occupies nine pages, commences at page 17, with the following head-title:—

Historia trium navigationum Batavorum in Septentrionem. Admirabilium ac nunquam ante auditarum trium navigationum Batavorum in Septentrionales Oras detegendi Freti Vaygats gratia, et in Novam Zemblam, per hactenus incognita Maria, fidelis relatio.

This abstract appears to have been made by Linschoten himself, as Camus states (p. 191) that this Latin edition of his works was translated by himself from the Dutch of 1596.

Although the description of Guinea, to which this abstract forms an appendix, has a separate title-page and pagination, it is shown by the register to form part of—

Navigatio ac Itinerarium Johannis Hugonis Linscotani in Orientalem sive Lusitanorum Indiam . . Collecta . . ac descripta per eundem Belgice, nunc vero Latine redditum Hagæ Comitis ex officinâ Alberti Henrici. Impensis authoris et Cornelii Nicolai, prostantque apud Ægidium Elsevirum. Anno 1599. Fol.

From the circumstance of this abstract appearing at the end of Linschoten's work, it has been by some confounded with his narrative of his own two Arctic voyages.

Dutch. In 1646, another abstract of the original narrative appeared in the first volume of the Dutch collection, entitled:—

Begin ende Voortgangh van de Vereenighde Neder-

landtsche Geoctroyeerde Oost-Indische Compagnie. 1646. obl. 4to.

This important work, which is profusely illustrated, has no editor's name or place of imprint. It was, however, edited by Isaak Commelin, a learned Amsterdammer, and printed at Amsterdam, as we learn from Chalmot's *Biographisch Woordenboek de Nederlanden*, in art. Commelin (Isaak). Chalmot had a good authority for this statement, namely, Isaak Commelin's son, Kasper, who, at page 866 of his *Beschryvinge van Amsterdam*, declares his father to have been the editor, further mentioning that this and other works were all printed at Amsterdam by Jansson.

It was reprinted in 1648, under the following title:—

Verhael van de eerste Schip-vaert der Hollandische ende Zeeusche Schepen doer't Way-gat by Noorden Noorwegen, Moscovien ende Tartarien om, na de Coninckrijcken Cathay ende China, Met drie Schepen, uyt Texel gezeylt in den Jare 1594. Hier achter is by-ghevoeght de beschrijvinghe van de Landen Siberia, Samoyeda, ende Tingæsa. Seer vreemt on vermaackelijck om lesen. T' Amsterdam. Voor Ioost Hartgers, Boeck-verkooper in de Easthuys-steegh in de Boeck-winckel bezijden het Stadt-huys, 1648. 4to.

And it re-appeared in 1650 with the same title. This work, though professing on the title-page to be an account of the first voyage only, contains an account of the second and third voyages also.

Another Dutch abstract was printed by G. J. Saeghman at Amsterdam, in 1663, with the following title:—

Verhael van de vier eerste Schip-Vaerden der Hollandtsche en Zeeuwsche Schepen naar Nova Zembla, by Noorden Noorwegen, Moscovien ende Tartarien om, na de Coninckrijcken Cathay en China. Uytgevaren in de Jaren 1594, 1595, 1596, en 1609, ende hare wonderlijcke avontueren, op de Reysen voor gevallen. Den laetsten druck van nieuws ouersien, en met schoone Figueren verbetert. T'Amsterdam, Gedruckt by Gillis Joosten Saeghman, Boeckdrucker en Boeck verkooper, in de Nieuwe Straet. Anno 1663. 4to.

We have not had an opportunity of seeing this work, and therefore cannot say whether or not it is a reprint of the last-mentioned abstract. The fourth voyage of 1609 can only be that of Henry Hudson, who undertook it at the instance of the Dutch East India Company. The journal of this voyage, written by Robert Juet of Limehouse, "master's mate", is given by Purchas in his "Pilgrimes", vol. iii, pp. 581-595.

An abstract of De Veer's work is likewise contained in the first volume of the several editions of Blaeu's "Great Atlas", which have been already described in page cxxv: in the Latin at page 24; in the French at page 27; and in the Spanish at page 42. The Dutch edition we have not seen.

German. A translation from Saeghman's abstract appeared in 1675, in a collection by Rudolf Capel, entitled, "Vorstellungen des Norden". Hamburg, 1675, 4to.; in the fifth chapter of which it is entered as follows:—

Die von den Holländern zu vier unterschiedenen mahlen, nemlich in Jahr c. 1594, 1595, 1596, und 1609, umsonst versuchte Seefarth durchs Norden nach der Sineser Land Japan und Ost Indien. Auss der Niederländischen in die Hochteutsche Sprache übersetzet.

Another edition appeared in 1678.

Another abstract in German was given in 1768, in Adelung's *Geschichte der Schiffahrten*, published at Halle, 1768. In speaking of the great rarity of the original, Adelung acknowledges himself obliged to make use of the summary in the French collection, next described, which he collated with that of Capel.

French. The French collection to which we have just alluded, was edited by Constantin de Renneville, under the title:—

Recueil des Voyages qui ont servi à l'établissement et aux progrès de la Compagnie des Indes orientales, formée dans les provinces Unies des Pays Bas. Amst., 1702, 1710, 1716, 1725, in 6 vols.; and in 1754, in 6 vols. in 12mo.

This is an unacknowledged translation, with a slight alteration in the language at the commencement of the work, from the Dutch collection already described, "Begin ende Voortgangh," etc.

English. In the year 1703, was published an English translation of the above abstract, which was probably made from the French version by Renneville.

A very brief summary of the three voyages is also given in the first volume of Harris's *Navigantium et Itinerantium Bibliotheca,* pp. 550-564. Lond. 1705. Fol.

The winter's residence of the Dutch in Novaya Zemlya has been repeatedly treated of in various forms. The most recent work on the subject is probably a poem with the title—

De Overwintering der Hollanders op Nova Zembla gedicht van Tollens, met Houtsneden van Henry Brown, naar teekeningen van I. H. I. van den Bergh. Leeuwarden, G. T. W. Suringar, 1843. 4to.

Of the English translation by Phillip, which forms the text of the present volume, we are unable to speak in very favourable terms. Independently of a number of errors resulting evidently from the want of a thorough acquaintance with the Dutch language, the work is disfigured by numerous typographical errors, arising seemingly from the circumstance that the translator placed his manuscript in the printer's hands, and never saw the work as it passed through the press. In the notes at the foot of the text, in the present edition, these errors are corrected, and attention is drawn to those cases in which subsequent writers, who merely consulted Phillip's translation of Purchas's abridgement of it, have thereby been misled.[1]

[1] One further curious instance has only recently come to our knowledge. Captain Beechey, when speaking (p. 257) of the bears which were killed by the Dutch while in their winter quarters, says that on opening one of them "there was found in its stomach 'part of a buck, with the hair and skinne and all, which not long before she had torne

Besides De Veer's narrative, Phillip translated from the Dutch the three works mentioned below.[1] As one then who performed so much for the cause which it is the object of the Hakluyt Society to promote, he has a claim to our

and devoured,' a fact (he adds) which I mention only to rectify an error in supposing deer did not frequent Nova Zembla."

Did the fact of the existence of deer in Novaya Zemlya rest upon this statement alone, it would have but a weak foundation; for, as is shown in page 182, note 3, the original Dutch is "stucken van *robben*, met huijt ende hayr"—"pieces of *seals*, with the skin and hair." But, in truth, the existence of deer in that country is established by the incontrovertible evidence adduced in the notes to pages 5, 83, and 104; to which has to be added the fact recorded in the Appendix, p. 269, that when Hudson and his crew were on the coast of Novaya Zemlya in 1608, they saw there numerous signs of deer, and on one occasion "a herd of white deere of ten in a companie;" so that they actually gave to the place the name of Deere Point.

[1] 1.—"The Description of a Voyage made by certain Ships of Holland into the East Indies . . . who set forth on the 2nd Aprill 1595, and returned on the 14th of August 1597. Printed by John Woolfe, 1598, 4to."

In his dedication to this work, of which the original was written by Bernard Langhenes, Phillip announces a translation of Linschoten's voyages; and in the same year there appeared—

2.—"John Huighen van Linschoten, his discours of voyages into ye Easte and West Indies. Devided into foure books. Printed at London by John Woolfe;" on the title-pages of the second, third, and fourth books of which work the initials W. P. are given as those of the translator.

In the advertisement to the reader in this latter work (copies of which have sold as high as £10 15*s*.), it is stated that the "Booke being commended by Maister Richard Hackluyt, a man that laboureth greatly to advance our English name and nation, the printer thought good to cause the same to be translated into the English tongue."

3.—"The Relation of a wonderfull Voiage made by William Cornelison Schouten of Horne. Shewing how South from the Straights of Magellan in Terra del Fuego, he found and discovered a newe passage through the great South Sea, and that way sayled round about the World. Describing what Islands, Countries, People, and strange Adventures he found in his saide Passage. London, imprinted by T. D. for Nathaneell Newberry, 1619. 4to."

This English edition is exceedingly rare.

forbearance for all the imperfections of his translation, which in spite of them, gives still no unapt representation of the simplicity and quaintness of its Dutch original.

The editor has already acknowledged the aid afforded to him by Mr. Vogel and Mr. Petermann. He has now also to express his obligation to Mr. R. H. Major and Mr. W. B. Rye, of the British Museum, for much valuable assistance in the bibliographical portions of this Introduction. And he has further to record, that to his worthy friend and preceptor in the Dutch language, Mr. John Bos,—who was employed by him to make a new translation of De Veer's text into English, in order that he might be spared the inconvenience of collating the whole work in the Reading Room of the British Museum,—he is indebted for much help in the preparation of the index at the end of this volume, and also for many curious particulars of information which none but an old Amsterdammer could well have supplied.

February 15*th*, 1853.

NOTICE.

The accompanying Map, which has been reproduced by Mr. F. Muller of Amsterdam, is issued to Members of the Hakluyt Society, to be bound up with the volume containing the Three Voyages of Barents. It is the first Map on which the track of Barents, in his third voyage, is shown.

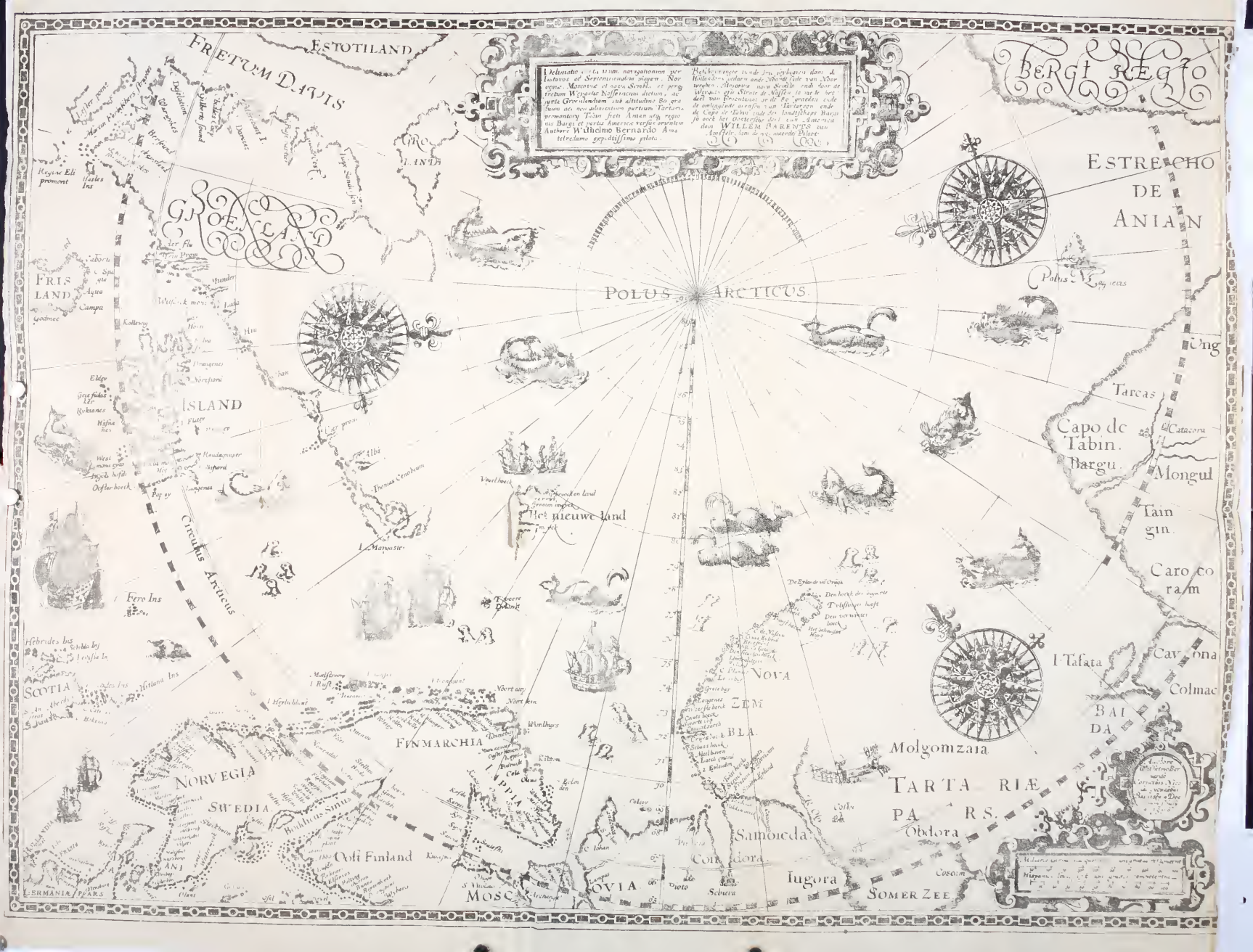
The Map is stated (on legends at the top, and also at the foot—to the right) to have been drawn by Willem Barents himself ("Auctore Wilhelmo Bernardo"). It was probably drawn by him at his winter quarters in Novaya Zembya, and brought home by Heemskerk. The legend at the foot further states that the map was engraved by Baptista-a-Doetichem, probably a son of Lucas-a-Doetichem, who engraved the plate of the funeral of Charles V, in 1558. The thirty-six plates in the tenth edition of Linschoten's *Itinerarium*, were all engraved by the son Baptista, of Doetichem, which is a small town in Guelderland.

In the same legend it is added "Cornelius Nicolai excudebat." The Dutch name of this publisher is Cornelius Claeszoon. He was the celebrated publisher at Amsterdam who published the three editions of Linschoten's *Itinerarium* in 1595 and 1604, in Dutch. In 1599 he brought out an abridged Latin translation, in the second part of which is inserted a short narrative of the Arctic Expedition; quite distinct from the larger work written by Linschoten, and published in 1601 by Gerard Ketel at Franeker in Friesland, with entirely different maps, and without a narrative of the Arctic voyage.

It is, therefore, clear that the map was first published in 1599 by Cornelius Claeszoon (who was also publisher of the Journal of De Veer), in the second part of the abridged Latin edition of Linschoten's *Itinerarium;* but it is wanting in some copies of this second part.

C. R. M.

Milliaria Germanica quorum 15. unum gradum respondent
10 20 30 40 50 60 70 80 90 100
Hispanica leuca 17½ unum gradum complentia
10 20 30 40 50 60 70 80 90 100



Deliniatio ... navigationum per Iustavos ad Septentrionalem plagam, Norvegiae, Moscoviae et novae Sembla, et per fretum Weygatis Nassovicum dictum, ac aperta Groenlandiam sub altitudine 80 graduum ac non ultra ... partium Tartariae promontorij Tabin ... Amian ... regionis Bargi et partis Americae versus orientem Authore Wilhelmo Bernardo Amstelredamo expeditissimo pilota.
Beschryvinge vande Iris seylagien dans de Hollanders gedaen ende Noordt Gode van Noorwegen, Moscovia, nova Sembla ende door de Weygats ofte Straete de Nassau, so vande hoeck van Groenlandt onder de 80 graeden ende de omleggende arensen van Tartaren ende de Capo de Tabin ende den landtschaps Bargi so oock het Oosterschen deel van Amerika door WILLEM BARENTS van Amstelredam de wegvaerdte Piloot.
FRETUM DAVIS
ESTOTILAND
GROENLAND
FRISLAND
ISLAND
Circulus Arcticus
Fero Ins
SCOTIA
NORVEGIA
SWEDIA
Boddicus Sinus
Oost Finland
FINMARCHIA
LIPPIA
MOSCOVIA
Het nieuwe land
POLUS ARCTICUS
NOVA ZEMBLA
Samoieda
Condora
Iugora
SOMER ZEE
Obdora
TARTARIAE PARS
Molgomzaia
I. Tafata
Cavona
Colmac
BAIDA
Caro coram
Tain gin
Mongul
Capo de Tabin
Bargu
Tarcas
Catacora
Ung
ESTRECHO DE ANIAN
Polus Magnetis
BERGI REGIO

THE

True and perfect Description of three Voyages, so strange and woonderfull,

that the like hath neuer been

heard of before:

Done and performed three yeares, one after the other, by the Ships of *Holland* and *Zeland*, on the North sides of *Norway*, *Muscouia*, and *Tartaria*, towards the Kingdomes of *Cathaia* & *China;* shewing the discouerie of the Straights of *Weigates*, *Noua Zembla*, and the Countrie lying vnder 80. degrees; which is thought to be *Greenland:* where neuer any man had bin before: with the cruell Beares, and other Monsters of the Sea, and the vnsupportable and extreame cold that is found to be in those places.

And how that in the last Voyage, the Shippe was so inclosed by the Ice, that it was left there, whereby the men were forced to build a house in the cold and desart Countrie of *Noua Zembla*, wherin they continued 10. monthes togeather, and neuer saw nor heard of any man, in most great cold and extreame miserie; and how after that, to saue their liues, they were constrained to sayle aboue 350. Duch miles, which is aboue 1000. miles English, in litle open Boates, along and ouer the maine Seas, in most great daunger, and with extreame labour, vnspeakable troubles, and great hunger.

Imprinted at London for *T. Pauier.*
1609.

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Imprinted at London for *T. Pauier.*
1609.

TO THE RIGHT WORshipfull, Sir *Thomas Smith* Knight, Gouernour of the *Muscouy* Company, &c.

RIGHT WORSHIPFVLL: Being intreated by some of my Friends, and principally by M. Richard Hakluyt (a diligent obseruer of all Proceedings in this nature) to Translate and publish these three yeares Trauelles and Discoueries of the Hollanders to the North-east; I could not deuise how to consecrate my Labours so properly to any, as to your selfe, considering not onely the generall good affection the whole Kingdome takes notice, that you beare to all Honorable actions of this kinde, be they for Discouerie, Traffique, or Plantation; but also in respect of that particular charge, most worthily recommended to your care, ouer the Trade of the English in those North-east Partes.

Many attempts and proffers (I confesse) there haue bin to find a passage by those poorest parts to the richest; by those barbarous, to the most ciuile; those vnpeopled, to the most popular; those Desarts, to the most fertile Countries of the World: and of them all, none (I dare say) vndertaken with greater iudgement, with more obdurate Patience, euen *aduersus Elementa, aduersus ipsam in illis locis rerum naturam*, then these three by the Hollanders.

If any of our Nation be employed that way in time to come, here they haue a great part of their Voiage layd open, and the example of that industrious people (first excited to this and other famous Voyages, by imitation of some of ours) for the conquering of all difficulties and dangers; those people (I say) that of all Christians, and for aught I know, of all Adams Posteritie, haue first nauigated to 81 Degrees of Northerly Latitude, and wintered in 76, where they had no Inhabitants, but Foxes, Beares, and Deare, to keepe them company.

And were it for nothing else, but to register the miraculous prouidence of the Creator, and his admirable and vnspeakable workes in these congealed Climats, vnknowen vtterly to the Ancients, and to demonstrate how much we are obliged to his omnipotent fauour, for planting vs in so temperate, so ciuill, and so Religious a part of the World, as this blessed Island; I thinke omission in this kinde were little lesse than Sacriledge.

As it is, I humbly desire you to vouch-safe it your protection, and to esteeme mee,

Alwayes deuoted to your seruice,

WILLIAM PHILLIP.

THE FYRST PART

OF THE

NAUIGATION INTO THE NORTH SEAS.

It is a most certaine and an assured assertion, that nothing doth more benefit and further the common-wealth (specially these countries[1]) then the art and knowledge of nauigation, in regard that such countries and nations as are strong and mightie at sea, haue the meanes and ready way to draw, fetch, and bring vnto them for their maintenaunce, all the principalest commodities and fruites of the earth, for that thereby they are inabled to bring all necessary things for the nourishment and sustentation of man from the vttermost partes of the world, and to carry and conuay such wares and marchendizes whereof they haue great store and aboundance vnto the same places, which by reason of the art of nauigation, and the commodities of the sea, is easily to be effected and brought to passe. Which nauigation as it dayly more and more increaseth (to the great woonder and admiration of those, that compare the sea-faring and nauigation vsed in our forefathers times, yea and that also that hath beene practised in our age, with that which now at this present is daily furthered and sought out), so there are continually new

As the art of nauigation more increaseth, so there are daily more new countries found out.

[1] Namely, the United Provinces of the Netherlands.

voiages made, and strange coasts discouered; the which although they be not done by the first, secōd, or third voiage, but after, by tract of time, first brought to their full effect, and desired commoditie, and the fruits thereof, by continuance of time reaped. Yet we must not be abasht, nor dismayed, at the labour, toile, trauaile, and dāgers sustayned in such voiages, to that end made, although as I said before the benefit thereof be not had nor seene in the first, second, third, or more voiages; for what labour is more profitable, and worthier praise and commendation, then that which tendeth vnto the common good and benefit of all men; Although such as are vnskilfull, contemners, and deriders of mens diligence and proceedings therein, at the first esteeme it an vnprofitable and needlesse thing, when as the end prooueth beneficiall and commodious. If the famous nauigators Cortesius, Nonius, and Megalanes,[1] and others, that in their times sought out and discovered the kingdomes, countries, and ilands farre distant from vs, in the extreamest parts of the world, for the first, second, or third voyage, that had succeeded vnfortunately with them, had left off and giuen ouer their nauigatiō, they had not afterward reaped nor enioyed the fruites, benefits, and commodities thereof. Alexander magnus (after he had woone all Grecia, and from thence entred into little and great Asia, and comming to the farthest parts of India, there found some difficultie to passe) sayd, If we had not gone forward, and persisted in our intent, which other men esteemed and held to be impossible, we had still remayned and stayed in the entry of Cilicia,[2] where as now we haue ouerrunne and past through all those large and spacious countries: for nothing is found and effected

Diligence and continuance effect that which is sought.

We must not leane of by some mens dislike or dispraise in our proceedings.

A thing not continued, can not be effected.

All things are effected in conuenient time.

[1] The Amsterdam Latin version of 1598 has "*Columbus*, Cortesius, et Magellanus". But the emendation is unnecessary, since the author evidently intends Vasco *Nuñez* de Balboa, the discoverer of the Pacific.

[2] "Cicilia", in the English original, can only be an error of the press.

all at one time, neither is any thing that is put in practise, presently brought to an end. To the which end, Cicero wisely saith, God hath giuen vs some things, and not all things, that our successours also might have somewhat to doe. Therefore we must not leaue off, nor stay our pretence in the middle of our proceedings, as long as there is any commoditie to be hoped, and in time to be obtayned: for that the greatest and richest treasures are hardliest to be found. But to make no long digression from our matter, concerning the dayly furtheraunce of the most necessarie and profitable art of nauigation, that hath been brought to full effect, not without great charges, labour, and paines; ouerslipping and not shewing with how long and troublesome labour and toyle, continually had, the passages to the East and West Indies, America, Brasilia, and other places, through the straight of Magellanes, in the South Sea, twise or thrise passing vnder the Line,[1] and by those meanes other countries and ilands, were first found out and discouered.

Let vs looke into the White Seas,[2] that are now so commonly sayled (on the north side of Muscouia), with what cumbersome labour and toyle they were first discouered: What hath now made this voyage so common and easie? is it not the same, and as long a voyage as it was, before it was fully knowne and found out? I,[3] but the right courses, which at the first were to be sought, by crossing the seas from one land to another, and are now to be held aloofe

That which in the beginning is hard, by continuance of time is made easie and light.

[1] *Deur ende weer deur de Linie*—passing and repassing the Line.

[2] *De witte Zee*—the White Sea.

[3] The adverb of affirmation, now written *ay*. A striking instance of its use occurs in *Romeo and Juliet*:—

> "Hath Romeo slaine himself? say thou but I,
> And that bare vowell I shall poyson more
> Than the death-darting eye of Cockatrice;
> I am not I, if there be such an I."

into the seas and directly sayled, hath, of difficult and toylesome, made them easie and ready voyages.

This small discourse I thought good to set downe, for an introduction vnto the reader, in regard that I haue vndertaken to describe the three voyages made into the North Seas, in three yeares, one after the other, behind Norway, and along and about Muscouia, towardes the kingdome of Cathaia and China: whereof the two last I myself holpe to effect;[1] and yet brought them not to the desired end that we well hoped.

The first finding is hard, but the second attempt is easier.

First, to shew our diligent and most toylesome labour and paynes taken, to find out the right course; which we could not bring to passe, as we well hoped, wished, and desired, and possible might haue found it, by crossing the seas, if we had taken the right course; if the ice and the shortnesse of time, and bad crosses had not hindered vs: and also to stoppe their mouthes, that report and say, that our proceeding therein was wholly vnprofitable and fruitelesse; which peraduenture in time to come, may turne vnto our great profite and commoditie. For he which proceedeth and continueth in a thing that seemeth to be impossible, is not to be discommended: but hee, that in regarde that the thing seemeth to be impossible, doth not proceed therein, but by his faint heartedness and sloath, wholly leaueth it off.

Not the nearness of the North Pole, but the Ice in the Tartarian sea, causeth the greatest cold.

Wee haue assuredly found, that the onely and most hinderaunce to our voyage, was the ice, that we found about Noua Zembla,[2] vnder 73, 74, 75, and 76 degrees; and not so much vpon the sea betweene both the landes:[3] whereby

[1] Thus it appears that Gerrit de Veer was not on the *first* voyage, as has been supposed by some writers.

[2] By the Russians called *Nóvaya Zémlya*, *i.e.*, "the New Land".

[3] Namely, between Nóvaya Zémlya and Spitzbergen, which latter was, by Barentsz and his companions, thought to be a part of Greenland.

it appeareth, that not the nearenesse of the North Pole, but the ice that commeth in and out from the Tartarian Sea,[1] about Noua Zembla, caused vs to feele the greatest cold. Therefore in regard that the nearenesse of the Pole was not the cause of the great cold that we felt, if we had had the meanes to haue held our appoynted and intended course into the north-east, we had peraduenture found some enteraunce: which course we could not hold from Noua Zembla, because that there we entred amongst great store of ice; and how it was about Noua Zembla, we could not tell, before we had sought it; and when we had sought it, we could not then alter our course, although also it is vncertaine, what we should have done, if we had continued in our north-east course, because it is not yet found out. But it is true, that in the countrie lying vnder 80 degrees,[2] (which we esteeme to be Greenland) there is both leaues and grasse to be seene; wherein, such beastes as feed of leaues and grasse, (as hartes, hindes, and such like beastes) liue: whereas to the contrary in Noua Zembla, there groweth nether leaues nor grasse, and there are no beastes therein but such as eate flesh,[3] as beares, and foxes, &c.; although Noua Zembla lyeth 4, 5, and 6 degrees more southerly from the Pole, then the other land aforesaid. It is also manifest, that vpon the south and north side of the line of the sunne on both sides, between both the tropicos, vnder 23 degrees and a halfe, it is as hot as it is right vnder the Line. What

Comparison of the heate under the line, with the cold under the North Pole.

[1] The Séa of Kara, east of Nóvaya Zémlya.

[2] This country, which was discovered by the Hollanders on their third voyage, has since proved to be Spitzbergen.

[3] The same is repeated by Sir John Barrow (*Chronological History of Voyages, etc.*, pp. 148, 185), who questions the fact asserted by Hudson, of his having seen reindeer in the island. But Lütke expressly declares (*Viermalige Reise, etc.*, Erman's *Translation*, pp. 43, 75, 314, 359), that these animals do exist in Nóvaya Zémlya, even beyond the 74th parallel of north latitude. See also Baer, in Berghaus's *Annalen*, vol. xvii, p. 300; vol. xviii, p. 25.

wonder then should it be, that about the North Pole also, and as many degrees on both sides, it should not bee colder then right vnder the Pole? I will not affirme this to bee true, because that the colde on both sides of the North Pole hath not as yet beene discouered and sought out, as the heat on the north and south side of the Line hath beene. Onely thus much I will say, that although we held not our direct pretended[1] course to the north-east, that therefore it is to be iudged, that the cold would haue let our passage through that way, for it was not the sea, nor the neerenesse vnto the Pole, but the ice about the land, that let and hindered vs (as I sayd before) for that as soon as we made from the land, and put more into the sea, although it was much further northward, presently we felt more warmth; and in yt opinion our pilote William Barents[2] dyed, who notwithstanding the fearful and intollerable cold that he endured, yet he was not discouraged, but offered to lay wagers with diuers of us, that by Gods helpe he would bring that pretended voiage to an end, if he held his course north-east from the North Cape. But I will leaue that, and shewe you of the three voyages aforesaid, begun and set forth by the permission and furtherance of the generall States of the vnited Prouinces, and of Prince Maurice, as admirall of the sea, and the rich towne of Amsterdam. Whereby the reader may iudge and conceaue what is to bee done, for the most profite and advantage, and what is to be left.

The resolute intent and opinions of William Barents.

First you must understand, that in anno 1594 there was 4 ships set foorth out of the vnited Prouinces, whereof two were of Amsterdam, one of Zelandt, one of Enckhuysen, that were appointed to saile into the North Seas, to discouer the kingdomes of Cathaia, and China, north-ward from

[1] Intended.

[2] As is shown in the Introduction, the proper name of this able navigator is Willem Barentszoon, that is, William, the son of Barent or Bernard; which name, as usually contracted, was written Barentsz.

Norway, Muscouia, and about Tartaria; whereof William Barents, a notable skilfull and wise pilote, was commander ouer the ships of Amsterdam, and with them vpon Whit-sunday[1] departed from Amsterdam and went to the Texel.

Upon the fifth of June they sailed out of the Texel, and hauing a good wind and faire weather, vpon the 23 of June, they arrived at Kilduin in Muscouia,[2] which for that it is a place well knowen and a common voyage, I will make no further discription thereof.

The 29 of June, at foure of the clocke in the after noone, they set saile out of Kilduin, and so 13 [52] or 14 [56] miles[3] out-right sailed north-east, with a north north-west wind, and close weather.

The 30 of June they sayled east north-east 7 [28] miles, till the sunne was east south-east [about half-past six o'clock in the morning],[4] with a north wind, with 2 schower sailes,[5]

[1] May 29th, 1594.

[2] The island of Kildin, on the coast of Russian Lapland, in 69° 18′ north latitude, and 34° 20′ longitude east of Greenwich.

[3] Dutch or German miles of fifteen to the degree; so that one such mile is equal to four English sea miles, or geographical miles of sixty to the degree. To assist the reader, who might not always have this in mind, the English miles will throughout be inserted between brackets.

[4] A rude way of determining the time by the bearing of the sun, customary among seamen of all nations in those days, for want of portable time-pieces. Were the precise azimuth of the sun observed, no method could be more exact; but as no interval between the several points of the compass (which are 11° 15′ apart) is taken into account, and as the sun's bearing is also subject to the variation of the compass, the result must be only approximative. From the compass-bearing alone, as recorded, it would be difficult for the reader to form anything like a correct idea of the actual time—for example, when, on the 30th of June, the sun was observed to be full south, it wanted more than an hour-and-a-quarter of mid-day. It is, therefore, deemed advisable to insert, after each observation of time by the sun, the time by the clock to the nearest quarter of an hour.

[5] *Schoverseylen*—the courses, or sails on the lower masts.

there they cast out their lead, at 100 fadome deepth, but found no ground.

From whence the same day they sailed east north-east[1] 5 [20] miles, till the sunne was full south [$\frac{3}{4}$ past 10, A.M.], hauing the wind north, with 2 schower sailes, where once againe they cast out the lead 100 fadome deepe, but found no ground; and then from noone to night[2] the same day, they sailed east, and east and by north 13 [52] miles, till the sunne was north-west [$\frac{1}{4}$ past 7, P.M.], and there casting out their lead, they had ground at 120 fadome, the ground being oasie,[3] and blacke durt.

The 1 of July, after they had sailed one quarter[4] 4 [16] miles east, and east and by north, early in the morning they cast out the lead, and found ground at 60 fadome, where they had an oasie small sandy ground; and within an houre after they cast out the lead againe, and had ground at 52 fadome, being white sande mixed with blacke, and some-what oasie: after that they had sailed 3 [12] miles east and by north, where they had ground at 40 fadome, being gray sand mixed with white. From thence they sailed 2 [8] miles east-ward, with a north north-east winde, there they had ground at 38 fadome, being red sand mixed with black, the sunne being south-east and by east [$\frac{1}{4}$ past 7, A.M.]. From thence they sailed 3 [12] miles, east and by south, and east south-east til noone, where they had the sunne at 70 degrees and $\frac{3}{4}$,[5] there they cast out the lead againe, and had ground at 39 fadome, being small gray sand, mixed with blacke stippellen[6] and pieces of shels.

Then againe they sailed 2 [8] miles south-east, and then

[1] *O. ten n.*—east by north.

[2] *Tots avonds*—till the evening.

[3] Oozy, muddy.

[4] *Een quartier*—one watch; the duration of which was, as usual, four hours.

[5] *I.e.*, they found themselves to be in 70° 45′ north latitude, by means of an observation of the sun.

[6] Small black specks.

woond[1] northward with an east north-east wind, and after sailed 6 [24] miles north-east all that day,[2] with a south-east wind, till the sunne was north north-west [¼ past 9 P.M.], the weather being cold; and the lead being cast foorth they found ground at 60 fadome, being small gray oasie sand, mixed with a little blacke, and great whole shels:[3] after that the same euening to the first quarter,[4] they sailed 5 [20] miles, east north-east, and north-east and by east, and after that east north-east, and north-east and by east 5 [20] miles, vntill the second of July in the morning, and there they had 65 fadome deepe, the ground oasie with black slime or durt.

The same day from morning till noone, they sailed 3 [12] or 4 [16] miles east north-east, the wind blowing stiffe south-east, whereby at noone they were forced to take[5] in the fore-saile, and driue with a schower saile,[6] in mistie weather, for the space of 3 [12] or 4 [16] miles, vntill euening, holding east, and east and by south: after that the winde blew south-west, and about 5 of the clocke in the after-noone, they cast out the lead, but had no ground at 120 fadome. That euening the weather cleared vp againe, and they sailed about 5 [20] miles before the wind, east north-east, for the space of 3 houres, and then againe it began to be mistie, so that they durst not saile forward, but lay hulling in the wind,[7] where vpon Sunday morning being the 3 of July, when the sunne was north-east [½ p. 1, A.M.], they cast out the lead and found ground at 125 fadome, being black durt or slime.

From thence they sailed 8 [32] miles east north-east, till

[1] *Wendense weder noordwaert over*—they again tacked to the north. Phillip uses throughout the expression "to wind" in the sense of "to tack".

[2] *Van deeldagh af*—from noon.

[3] *Groote holle schulpen*—large hollow shells.

[4] The first watch, beginning at 8 o'clock P.M.

[5] "Table."—*Ph.* Evidently a misprint.

[6] *Een schover zeyl*—one course, namely, the main-sail.

[7] *Wierpent aen de wint*—they hauled close to the wind.

the sunne was south-east [½ p. 7, A.M.], and casting out the lead, found ground at 140 fadom, being blacke slimie durt, at which time they tooke the high of the sun and found it to be 73 degrees and 6 minutes, and presently againe they cast out the lead, and had 130 fadome deepth, the ground being blacke slime. After that they sayled 6 [24] or 7 [28] miles further east north-east, till the sunne was north-west [½ p. 7, P.M.].

On Sunday in the morning, being the 3 of July, it was very faire and cleare weather, the wind blowing south-west, at which time William Barents found out the right meridien, taking the high of the sunne with his crosse-staffe,[1] when it was south-east, and found it to be eleuated in the south-east 28 degrees and a halfe, and when it had passed ouer west and by north, it was but[2] 28 degrees and a half aboue the horizon, so that it differed 5 points and a half, which being deuided there rested 2 points and ¾; so that their compasse was altered 2 points and ¾, as it appeared the same day, when the sunne was in her higth, betweene south south-west and south-west and by south, for the sun was south-west and by south, and yet was not declined, and they had 73 degrees and 6 minutes.

[1] *Graedt-boogh*—rendered *Radius astronomicus* in the Amsterdam Latin version of 1598, and *Ray nautique* in the French version of the same year and place—Cross-staff, Jacob's-staff, or fore-staff; a well known instrument, no longer in use among European navigators. But the Arab seamen on the east coast of Africa still employ a primitive instrument, which is essentially the same. It consists of a small quadrangular board, through which a string, knotted at various distances, is passed; each knot being at such a distance from the board, that when the latter is held by the observer before him, with the knot between his teeth and the string extended, the board (between its upper and lower edges) shall subtend the angle at which the pole-star is known to be elevated above the horizon at some one of the ports frequented by the observer. Inartificial as such an instrument may be, yet if, instead of a knotted string, a notched stick were used, on which the board might slide backwards and forwards, it would be the cross-staff of our early navigators.

[2] *Noch* (now spelt *nog*)—again.

The 4 of July in the morning, they sailed 4 [16] miles east and by north, and casting out the lead found ground at 125 fadome, being slimie. That night the weather was mistie againe, and in the morning the wind was east; then they sailed 4 [16] miles south-east and by south, till the sunne was east [½ p. 4, A.M.], and then againe they cast out the lead, and found ground at 108 fadome, black durt; then they wound north-ward, and sailed 6 [24] miles, north north-east, and north-east and by north, vntill the sunne was south south-west [¾ p. 11, A.M.], and then they saw the land of Noua Zembla, lying south-east and by east 6 [24] or 7 [28] miles from them, where they had black durty ground at 105 fadome. Then they woond southward againe, and sailed 6 [24] miles, south and by west, till the sunne was west north-west [5, P.M.], there they had 68 fadome deepe, with durtie ground as before, the wind being south-east.

Then they woond east-ward and sailed 6 [24] miles east and by south, at which time,[1] William Barents took the height of the sunne with his crosse-staffe,[2] when it was at the lowest, that is between north north-east and east and by north,[3] and found it to bee eleuated aboue the horizon 6 degrees and ⅓ part, his declination being 22 degrees and 55 minutes, from whence substracting the aforesaid heigth, there resteth 16 degrees and 35 minutes, which being substracted from 90 degrees, there resteth 73 degrees and 25 minutes; which was when they were about 5 [20] or 6 [24] miles from the land of Noua Zembla.

Then they woond east-ward and sailed 5 [20] miles, east and by south, and east south-east, and past by a long point of land that lay out into the sea,[4] which they named Langenes:

[1] *Den 4 Julij des nachts*—on the 4th of July, at night.

[2] *Graed-boogh*. See the preceding page, note 1.

[3] So in the original. But the sense requires "*north*-east and by north", that being the next point to N.N.E.

[4] *Een laghe uytstekenden hoeck*—a *low* projecting point. Through some misconception, Phillip repeatedly has "long" for "low".

and hard by that point east-ward there was a great bay, where they went a land with their boate, but found no people.

Three [12] or foure [16] miles from Langenes east north-east, there lay a long[1] point, and a mile [4 miles] east-ward from the said point there was a great bay, and upon the east side of the said bay, there lay a rock not very high aboue the water, and on the west side of the bay, there stood a sharpe little hill, easie to be knowne: before the bay it was 20 fadome deepth, the ground small blacke stones, like pease: from Langenes to Cape Bapo[2] east north-east it is 4 [16] miles.

From Cape Bapo to the west point of Lombsbay north-east and by north are 5 [20] miles, and betweene them both there are 2 creekes. Lombsbay is a great wide bay, on the west side thereof hauing a faire hauen 6, 7, or 8, fadome deepe, black sand: there they went on shore with their boate, and vpon the shore placed a beacon, made of an old mast which they found there; calling the bay Lombsbay, because of a certaine kind of beares[3] so called, which they found there in great aboundance.

The east point of Lombsbay is a long narrow point, and by it there lyeth an island, and from that long point to sea-

[1] *Laghe*—low.

[2] *Capo Baxo*—Low Point. From the long connection of the Netherlands with Spain, the Dutch navigators appear to have employed the Spanish language for trivial names like "Low Point", "Black Point", as being more distinctive than the vernacular.

[3] *Eenderley aert van voghelen*—a certain kind of *birds*. This strange mistake of the translator has given occasion to frequent comment. It is the more unaccountable, as the original work contains a pictorial representation of these birds,—*noordtsche papegayen*, or northern parrots, as they are there called,—in connection with the plan of Lombsbay; and it is also expressly stated, that the bay "has its name from the birds which dwell there in great numbers. They are large in the body and small in the wing, so that it is surprising how their little wings can carry their heavy bodies. They have their nests on steep rocks,

ward in, there is a great creeke.[1] This Lombsbay lyeth vnder 74 degrees and $\frac{1}{3}$ part. From Lombsbay to the point of the Admirals Island,[2] they sailed 6 [24] or 7 [28] miles, north-east and by north. The Admirals Island is not very faire on[3] the east side, but a farre off very flat, so that you must shunne it long before you come at it; it is also very vneuen, for at one casting off the lead they had 10 fadome deepe, and presently at another casting of the lead they had but 6 fadome, and presently after that againe 10, 11, and 12 fadome, the streame running hard against the flats.

From the east end of the Admirals Island, to Cape Negro,[4] that is the Black Pointe, they sailed about 5 [20] or 6 [24] miles, east north-east; and a mile [4 miles] without the Black Point it is 70 fadome deepe, the ground slimie, as vpon Pamphius :[5] right eastward of the Blacke Point, there

in order to be secure from animals, and they sit on only one egg at a time. They were not afraid of us; and when we climbed up to any of their nests, the others round about did not fly away."

The bird in question is the Brunnich's Guillemot. *(Alca Arra.)* It is described and figured in the fifth volume of Gould's *Birds of Europe*, and in Yarrell's *British Birds*.

An assemblage of these birds, such as is here described by the author, "is called by the Russians a 'bazar'. Thus this Persian word has been carried by Russian walrus-hunters to the rocks of the icy sea, and there for want of human inhabitants applied to birds."—Baer, in Berghaus's *Annalen*, vol. xviii, p. 23.

[1] *Een laeghen slechten hoeck, ende daer leyt een cleijn Eylandeken by, van den hoeck af zeewaerts in, so was noch by oosten dien laeghen hoeck een groote wyde voert ofte inwijck*—A *low flat* point, and by it there lyeth a *small* island seawards from the point, and *also to the east of this low point* there is a great wide creek or inlet.

[2] *Het Admiraliteyts Eyland*—Admiralty Island.

[3] "One."—*Ph.*

[4] *Capo Negro.*

[5] Usually written *Pampus*. A bar of mud and sand near Amsterdam, at the junction of the Y with the Zuyder Zee. This simile calls to mind that of Mungo Park, who, on his discovery of the Niger, described it as being "as broad as the Thames at Westminster". Such homely comparisons, though by some they may be condemned as unscientific, often

are 2 sharpe pointed hills in the creeke, that are easie to be knowen.

The 6 of July, the sunne being north [½ p. 10, P.M.], they came right before the Blacke Point with faire weather: this Blacke Point lyeth vnder 75 degrees and 20 minutes. From the Blacke Point to Williams Island,[1] they sailed 7 [28] or 8 [32] miles, east north-east, and between them both about halfe a mile, [2 miles] there lay a small island.

The 7 of July they sailed from Williams Island, and then William Barents tooke the height of the sunne with his cross-staffe,[2] and found it to be eleuated aboue the horizon[3] in the south-west and by south 53 degrees and 6 minutes,[4] his declination being 22 degrees and 49 minutes, which being added to 53 degrees and 6 minutes, make 75 degrees and 55 minutes.[5] This is the right height of the pole of the said island. In this island they found great store of driff-wood, and many sea-horses, being a kinde of fish[6] that keepeth in the sea, having very great teeth, which at this day are vsed insteed of iuorie or elephants teeth: there also is a good road for ships, at 12 and 13 fadome deep, against all winds, except it be west south-west and west windes; and there they found a piece of a Russian ship,[7] and that day they had the wind east north-east, mistie weather.

speak more distinctly to the feelings of such as can appreciate them than the most elaborate descriptions.

[1] *Willems Eyland.*

[2] *Met zijn groote quadrant*—With his large quadrant.

[3] This is not correctly stated, since it is the sun's zenith distance, and not its elevation above the horizon, that was 53° 5′. The observation is, however, correctly worked out, subject only to the trifling error of 1′.

[4] The original has 53° 5′ both here and two lines lower down. There is consequently an error of 1′ in the calculation. The correction should be made on the result, instead of on the observation itself.

[5] So in the original; but it should be 75° 56′.

[6] *Een ghedierte*—an animal.

[7] A proof, among many others, that the west coast of Nóvaya Zémlya had previously been visited by the Russians.

The 9 of July they entered into Beeren-fort,[1] vpon the road vnder Williams Island, and there they found a white beare, which they perceiuing, presently entered into their boate, and shot her into the body with a musket; but the beare shewed most wonderfull strength, which almost is not to be found in any beast, for no man euer heard the like to be done by any lyon or cruel beast whatsoeuer: for notwithstanding that she was shot into the bodie, yet she leapt vp, and swame in the water, the men that were in the boate rowing after her, cast a rope about her necke, and by that meanes drew her at the sterne of the boat, for that not hauing seene the like beare before, they thought to haue carryed her aliue in the shippe, and to have shewed her for a strange wonder in Holland; but she vsed such force, that they were glad that they were rid of her, and contented themselves with her skin only, for she made such a noyse, and stroue in such sort, that it was admirable, wherewith they let her rest and gave her more scope with the rope that they held by her, and so drew her in that sort after them, by that meanes to wearie her: meane time, William Barents made neerer to her,[2] but the beare swome to the boate, and with her fore-feet got hold of the sterne thereof, which William Barents perceiuing, said, She will there rest her selfe; but she had another meaning, for she vsed such force, that at last she had gotten half her body into the boat, wherewith the men were so abashed, that they run into ye further end of the boate, and thought verily to have been spoiled by her, but by a strange means they were deliuered from her, for that the rope that was about her necke, caught hold vpon the hooke of the ruther, whereby the beare could get no further, but

[1] *Berenfort*—Bear Creek. It might be better written *Beren-voert;* as the word *voert*—which is apparently either the Danish *fiord*, or else the old form of the modern Dutch *vaart*—is used by the author (see page 13, note 1) as equivalent to *inwijck*, a creek or inlet.

[2] *Pulde hem altemet wat aen*—poked him now and then (with the boat-hook).

so was held backe, and hanging in that manner, one of the men boldly stept foorth from the end of the scute,[1] and thrust her into the bodie with a halfe-pike; and therewith she fell downe into the water, and so they rowed forward with her to the ship, drawing her after them, till she was in a manner dead, wherewith they killed her out-right, and hauing fleaed her, brought the skinne to Amsterdam.

The 10 of July,[2] they sailed out of Beren-fort fro Williams Island, and the same day in the morning got to the Island of Crosses,[3] and there went on land with their pinnace, and found the island to bee barren, and full of cliffes and rocks, in it there was a small hauen, whereinto they rowed with their boat. This island is about halfe a mile [2 miles] long, and reacheth east and west; on the west end it hath a banke, about a third part of a mile [1⅓ mile] long, and at the east end also another banke: vpon this island there standeth 2 great crosses; the island lyeth about 2 [8] long miles from the firme land,[4] and vnder the east-end thereof there is good road at 26 fadome, soft ground;[5] and somewhat closer to the island on the strand, at 9 fadome, sandy ground.

From the Island of Crosses to the point of Cape Nassawe,[6] they sailed east, and east and by north, about 8 [32] miles: it is a long[7] flat point which you must be carefull to shunne, for thereabouts at 7 fadome there were flats or sholes, very farre from the land: it lyeth almost under 76 degrees and a halfe. From the west end of Williams Island to the Island with the Crosses is 3 [12] miles, the course north.[8]

From Nassaw Point they sailed east and by south, and

[1] *Van de voorschuyt*—from the fore-part of the boat.
[2] "20 of July."—*Ph.*
[3] *Het Eylandt mette Cruycen*—the Island with the Crosses.
[4] The mainland of Nóvaya Zémlya.
[5] *Steeck gront*—stiff ground.
[6] *Tot den Hoeck van Nassouwen*—to Cape Nassau.
[7] *Laghe*—low.
[8] *Noordt-oost*—north-east.

east south-east 5 [20] miles, and then they thought that they saw land in north-east and by east,[1] and sailed towards it 5 [20] miles north-east to discrie it, thinking it to be another land, that lay northward from Noua Zembla; but it began to blow so hard out of the west, that they were forced to take in their marsaile,[2] and yet the wind rose in such manner, that they were forced to take in all their sailes, and the sea went so hollow, that they were constrained to driue 16 houres together without saile, 8 [32] or 9 [36] miles east north-east.

The 11 of July their boat was by a great wave of the sea sunke to the ground, and by that meanes they lost it, and after that they drave without sailes 5 [20] miles, east and by south; at last, the sunne being almost south-east [½ p. 7, A.M.], the wind came about to the north-west, and then the weather began somewhat to clear up, but yet it was very mistie. Then they hoysed vp their sailes againe and sailed 4 [16] miles till night, that the sunne was north and by east [11, P.M.], and there they had 60 fadome deepth, muddie ground, and there they saw certaine flakes of ice,[3] at which time vpon the 12 of July they woond west, and held north-west, and sailed about a mile [4 miles] with mistie weather, and a north-west wind, and sailed up and downe west south-west 3 [12] or 4 [16] miles to see if they could find their boat againe: after that they wound againe with the wind,[4] and sayled 4 [16] miles south-east, till the sunne was south-

[1] "The existence of the land said to have been seen by the Hollanders to the eastward of Cape Nassau is exceedingly doubtful. They themselves make but slight mention of it, and not at all on the second (third) voyage. Perhaps they saw some projecting point of the land of Novaya Zemlya; or yet more probably they mistook a fog-bank for land."—*Lütke*, p. 21.

[2] *Marseylen*—topsails.

[3] *Eenighe ys schollen*—some pieces of drift ice.

[4] *Wenden zijt weder aen de wint*—they again hauled close to the wind.

west [1, P.M.], and then they were close by the land of Noua Zembla, that lay east and by north, and west and by south; from thence they wound ouer againe till noone, and sayled 3 [12] miles north and by west; and then, till the sunne was north-west [$\frac{3}{4}$ p. 6, P.M.], they held north-west and by north 3 [12] miles; then they wound east-ward and sailed 4 [16] or 5 [20] miles north-east and by east.

The 13 of July at night, they found great store of ice, as much as they could descrie out of the top, that lay as if it had been a plaine field of ice;[1] then they wound west-ward ouer from the ice, and sailed about 4 [16] miles west south-west, till the sunne was east and by north [5 A.M.], and that they saw the land of Noua Zembla, lying south south-east from them.

Then they wound north-ward againe and sailed 2 [8] miles, till the sunne was east south-east [$\frac{1}{2}$ p. 6, A.M.], and then againe found great store of ice, and after that sailed south-west and by south 3 [12] miles.

The 14 of July they wound northward againe, and sayled with 2 schower sailes[2] north and by east, and north north-east 5 [20] or 6 [24] miles, to the height of 77 degrees

[1] *So veel als men uyten mars oversien mocht, altemael een effen velt ys.* This passage is deserving of special notice, on account of the following statement in Captain Scoresby's *Account of the Arctic Regions*:—The term *field* was given to the largest sheets of ice by a Dutch whale fisher. It was not until a period of many years after the Spitzbergen fishery was established, that any navigator attempted to penetrate the ice, or that any of the most extensive sheets of ice were seen. One of the ships resorting to Smeerenberg for the fishery, put to sea on one occasion, when no whales were seen, persevered westward to a considerable length, and accidentally fell in with some immense flakes of ice, which, on his return to his companions, he described as truly wonderful, and as resembling fields in the extent of their surface. Hence the application of the term 'field' to this kind of ice. The discoverer of it was distinguished by the title of 'field finder'."—Vol. i, p. 243.

[2] See page 7, note 4.

and $\frac{1}{3}$ part,[1] and entred againe amongst the ice, being so broad that they could not see ouer it, there they had no ground at 100 fadome, and then it blew hard west north-west.

From thence they wound south-ward, and sailed south south-west 7 [28] or 8 [32] miles, and came againe by the land, that shewed to be 4 or 5 high hilles. Then they wound northward, and till euening sayled north 6 [24] miles, but there againe they found ice.

From thence they wound south-ward, and sailed south and by west 6 [24] miles, and then againe entred into ice.

The 15 of July, they wound south-ward againe, sayling south and by west 6 [24] miles, and in the morning were by the land of Noua Zembla againe, the sunne being about north-east [$\frac{1}{2}$ p. 1, A.M.].

From thence they wound north-ward againe, and sayled north and by east 7 [28] miles, and entred againe into the ice. Then they wound south-ward againe, the sunne being west [$\frac{3}{4}$ p. 3, P.M.], and sailed south south-west, and south-west and by south 8 [32] or 9 [36] miles, vpon the 16 of July.

From thence they wound north-ward, and sailed north and by east 4 [16] miles; after that againe they wound west-ward, and sailed west and by south 4 [16] miles, and then they sailed north north-west 4 [16] miles, and then the wind blew north north-east, and it froze hard; this was upon the 17 of July.

Then they wound east-ward, and sailed east till noone, 3 [12] miles, and after that east and by south 3 [12] miles; from thence about euening they wound northward and sailed north and by east 5 [20] miles, till the 18 of July in the morning; then they sailed north and by west 4 [16] miles, and there entred againe amongst a great many flakes of

[1] 77° 20′ N. lat.

ice,[1] from whence they wound southward, and close by the ice they had no groūd at 150 fadom.

Then they sayled about 2 houres south-east, and east south-east, with mystie weather, and came to a flake of ice,[2] which was so broad that they could not see ouer it, it being faire still weather, and yet it froze, and so sailed along by the ice 2 houres; after that it was so mistie, that they could see nothing round about them, and sailed south-west two [8] miles.

The same day William Barents tooke the height of the sun with his astrolabium, and then they were under 77 degrees and a $\frac{1}{4}$ of the Pole,[3] and sailed south-ward 6 [24] miles, and perceiued the firme land,[4] lying south from them.

Then they sailed till the 19 of July in the morning, west south-west, 6 [24] or 7 [28] miles, with a north-west wind and mistie weather; and after that south-west and south-west and by west 7 [28] miles, the sunne being 77 degrees 5 minutes lesse.[5] Then they sailed 2 [8] miles south-west, and were close by the land of Noua Zembla, about Cape Nassaue.[6]

From thence they wound north-ward and sailed north 8 [32] miles, with a west north-west wind and a mist, and till the 20 of July in the morning north-east and by north 3 [12] or 4 [16] miles; and when the sunne was east [$\frac{1}{2}$ p. 4, A.M.] they wound west, and till euening sailed south-west 5 [20] or 6 [24] miles, with mistie weather, and then south-west and by south 7 [28] miles, till the 21 of July in the morning.

Then they wound north-ward againe, and from morning

[1] *In groote menichte van ys schollen* — among a great quantity of drift ice.

[2] *Een velt ys*—a field of ice.

[3] In 77° 15′ N. lat.

[4] The main land of Nóvaya Zémlya.

[5] 76° 55′ N. lat.

[6] *Capo de Nassauw'*.

till euening sailed north-west and by west 9 [36] miles, with mistie weather, and againe north-west and by west[1] 3 [12] miles; and then wound south-ward, and till the 22 of July in the morning sailed south south-west 3 [12] miles, with mistie weather, and till euening south and by west, 9 [36] miles, all mistie weather.

After that they wound north-ward againe, and sailed north-west and by north 3 [12] miles, and then 2 [8] miles north-west;[2] and in the moruing being the 23 of July the wind blew north-west, and then they cast out the lead, and had 48 fadome muddie ground.

Then they sailed 2 [8] miles north north-east and north and by east, and 2 [8] miles north-east, at 46 fadome deepe; after that they wound west-ward, and sailed west and by north 6 [24] miles; there it was 60 fadome deepe, muddy ground.

Then they wound eastward and sailed 3 [12] miles east and by north; then againe 9 [36] or 10 [40] miles east, and east and by south; and after that 5 [20] or 6 [24] miles east, and east and by south; and after that 5 [20] or 6 [24] miles more, east and by south, till euening, being the 24 of July; then againe 4 [16] miles south-east and by east, the wind being east north-east.

Then they woond north-ward, and till the 25 of July in the morning sailed north, and north and by west, 4 [16] miles; there they had 130 fadome deepe, muddie ground; then they sailed north-ward, where they had 100 fadome deepe, and there they saw the ice in the north-east; and then againe they sailed 2 [8] miles, north and by west.

Then they woond south-ward towards the ice, and sailed south-east one mile [4 miles]; after that they wound north-ward againe, and sailed north 6 [24] miles, and were so inclosed about with flakes of ice,[3] that out of the top they

[1] *N.W. ten N.*—N.W. by *north*.
[2] *N. ten W.*—N. *by* W.
[3] *Ys schollen*—drift ice.

could not discerne any thing beyond it, and sought to get through the ice, but they could not passe beyond it, and therefore in the evening they wound south-ward againe, and sailed along by the ice, south and west by 5 [20] miles, and after that south south-east 3 [12] miles.

The 25 of July at night, they took the heigth of the sunne, when it was at the lowest between north and north-east,[1] and north-east and by north, it being eleuated aboue the horizon 6 degrees and $\frac{3}{4}$, his declinatiō being 19 degrees 50 minutes; now take 6 degrees $\frac{3}{4}$ from 19 degrees and 50 minutes, and there resteth 13 degrees 5 minutes, which substracted from 90 there resteth 77 degrees lesse 5 minutes.[2]

The 26 of July, in the morning, they sailed 6 [24] miles south south-east, till the sunne was south-west [1, P.M.], and then south-east 6 [24] miles, and were within a mile of the land of Noua Zembla, and then wound north-ward from the land, and sailed 5 [20] miles north-west[3] with an east wind; but in the euening they wound south-ward againe, and sailed south south-east 7 [28] miles, and were close by the land.

Then they wound north-ward againe, and sailed north north-east 2 [8] or 3 [12] miles; from thence they wound south-ward, and sailed south south-east 2 [8] or 3 [12] miles, and came againe to Cape Trust.[4]

Then they wounde againe from the land, north-east, about halfe a mile [2 miles], and were ouer against the sandes of 4 fadome deepe, betweene the rocke and the land, and there the sands were 10 fadome deepe, the ground being small black stones; then they sailed north-west a little while, till they had 43 fadome deepe, soft ground.

From thence they sailed north-east 4 [16] miles, upon the

[1] *N.N.O.*—N.N.E.

[2] 76° 55′ N. lat.

[3] *N. ten* W.—*N. by* W.

[4] *Ende quamen weder by't landt aen de Cape des Troosts*—and came again close to the land at Cape *Comfort*.

27 of July, with an east south-east wind, and wound southward againe, where they found 70 fadome deepe, clay ground, and sayled south and south and by east 4 [16] miles, and came to a great creek; and a mile and a halfe [6 miles] from thence there lay a banke of sande of 18 fadome deepe, clay sandy ground, and betweene that sand or banke and the land it was 60 and 50 fadome deepe, the coast reaching east and west by the compasse.

In the euening they wound [stife[1]] north-ward, and sailed 3 [12] miles north north-east; that day it was mistie, and in the night cleare, and William Barents tooke the height of the sunne with his crosse-staffe,[2] and found it to be eleuated aboue the horizon 5 degrees 40 minutes, his declination being 19 degrees 25 minutes, from whence substracting 5 degrees 40 minutes, there resteth 13 degrees 45 minutes, which substracted from 90 rested 76 degrees 31 minutes[3] for the height of the Pole.

Upon the 28 of July, they sailed 3 [12] miles north north-east, and after that wound south-ward, and sailed 6 [24] miles south south-east, and yet were then 3 [12] or 4 [16] miles from the land.

The 28 of July, the height of the sun being taken at noone with the astrolobiū, it was found to be eleuated aboue the horizon 57 degrees and 6 minutes,[4] her declination being 19 degrees and 18 minutes, which in all is 76 degrees and 24 minutes, they being then about 4 [16] miles from the land of Noua Zembla, that lay all couered ouer with snow, the weather being cleare, and the wind east.

Then againe, the sunne being about south-west [1, P.M.],

[1] This word is not in the original; and it is inconsistent, as in the next line their course is stated to have been N.N.E.

[2] *Graedt-boogh.* See page 10, note 1.

[3] So in the original. It should be 76° 15′.

[4] In like manner as on the 7th July (see page 14), it is the sun's zenith distance that is here recorded instead of its altitude.

they wound north-ward, and sailed one mile [4 miles] north north-east, and then wound againe, and sailed another mile [4 miles] south-east, then they wound north-ward againe, and sailed 4 [16] miles north-east and north-east and by north.[1]

The same day[2] the height of the sunne being taken, it was found to be 76 degrees and 24 minutes, and then they sailed north-east 3 [12] miles, and after that north-east and by east 4 [16] miles, and vpon the 29 of July came into the ice againe.

The 29 of July the height of the sunne being taken with the crosse-staffe, astrolabium, and quadrant,[3] they found it to bee elevated aboue the horizon 32 degrees, her declination being 19 degrees, which substracted from 32 there resteth 13 degrees of the equator, which being substracted from 90 there rested 77 degrees; and then the neerest north point of Noua Zembla, called the Ice Point,[4] lay right east from them.

There they found certaine stones that glistered like gold, which for that cause they named gold-stones,[5] and there also they had a faire bay with sandy ground.

Upon the same day they wound south-ward againe, and sailed south-east[6] 2 [8] miles betweene the land and the ice, and after that from the Ice Point east, and to the south-

[1] *Noordt oost ten oosten*—N.E. by *east*.

[2] *Des selfden nachts*—the same *night*. The sun was then constantly above the horizon.

[3] *Metten graedtboogh, astrolabium ende quadrant*.

[4] *De aldernoordelijckste hoeck van Nova Sembla genaemt Vs hoeck*—the *northernmost* point, etc.

[5] Most probably marcasite or iron pyrites. Frobisher's third voyage to "Meta Incognita", *with fifteen vessels*, was principally for the purpose of bringing home an immense quantity of this mineral, which he had discovered on his former voyages, and fancied to be rich in gold.—See Hakluyt's *Voyages*, vol. i, pp. 74, 91; and Admiral Sir Richard Collinson's edition of Sir Martin Frobisher's *Three Voyages*. (Hakluyt Society, 1867.)

[6] *Z. ten O.*—S. *by* E.

ward[1] 6 [24] miles to the Islands of Orange; and there they laboured forward[2] betweene the land and the ice, with faire still weather, and vpon the 31 of July got to the Islands of Orange. And there went to one of those islands, where they found about 200 walrushen or sea-horses, lying upon the shoare to baske[3] themselues in the sunne. This sea-horse is a wonderfull strong monster of the sea, much bigger then an oxe, which keepes continually in the seas, hauing a skinne like a sea-calfe or seale, with very short hair, mouthed like a lyon, and many times they lie vpon the ice; they are hardly killed vnlesse you strike them iust vpon the fore-head; it hath foure feet, but no eares, and commonly it hath one or two young ones at a time. And when the fisher-men chance to find them vpon a flake of ice[4] with their yong ones, shee casteth her yong ones before her into the water, and then takes them in her armes, and so plungeth vp and downe with them, and when shee will reuenge herselfe vpon the boats, or make resistance against them, then she casts her yong ones from her againe, and with all her force goeth towards the boate; whereby our men were once in no small danger, for that the sea-horse had almost stricken her teeth into the sterne of their boate, thinking to ouerthrowe it; but by means of the great cry that the men made, shee was afraid, and swomme away againe, and tooke her yong ones againe in her armes. They haue two teeth sticking out of their mouthes, on each side one, each beeing about halfe an elle long, and are esteemed to bee as good as any iuorie or elephants teeth, specially in Muscouia, Tartaria, and there abouts where they are knowne, for they are as white, hard, and euen as iuory.[5]

[1] *Oost wel so zuydelijck*—cast a little south.

[2] *Laveerden*—"laveered", *i.e.*, advanced by repeated short tacks.

[3] "Baste"—*Ph.* A misprint. [4] *Een schots ys*—a piece of drift ice.

[5] A critical history of this animal is given in "Anatomische und Zoologische Untersuchungen über das Wallross (*Trichechus Rosmarus*) &c. von Dr. K. E. v. Baer"—*Mémoires de l'Acad. Imp. des Sc. de St.*

Those sea-horses that lay basking[1] themselues vpon the land, our men, supposing that they could not defend themselues being out of the water, went on shore to assaile them, and fought with thē, to get their teeth that are so rich, but they brake all their hatchets, curtle-axes,[2] and pikes in pieces, and could not kill one of them, but strucke some of their teeth ont of their mouthes, which they tooke with them; and when they could get nothing against them by fighting, they agreed to goe aboard the ship, to fetch some of their great ordinance, to shoot at them therewith; but it began to blow so hard, that it rent the ice into great peices, so that they were forced not to do it; and therewith they found a great white beare that slept, which they shot into the body, but she ranne away, and entred into the water; the men following her with their boat, and kil'd her out-right, and then drew her vpon the ice, and so sticking a half pike vp-right, bound her fast vnto it, thinking to fetch her when they came backe againe, to shoot at the sea-horses with their ordinance;

Pétersb., 6me Sér., Sciences Math., Phys. et Nat., tom. iv, 2de part., Sc. Nat. (1838), pp. 97-235.

In Scoresby's *Account of the Arctic Regions*, vol. i, p. 504, it is said: "When seen at a distance, the front part of the head of the young walrus, without tusks, is not unlike the human face. As this animal is in the habit of rearing its head above water, to look at ships and other passing objects, it is not at all improbable that it may have afforded foundation for some of the stories of mermaids. I have myself seen a sea-horse in such a position, and under such circumstances, that it required little stretch of imagination to mistake it for a human being; so like indeed was it, that the surgeon of the ship actually reported to me his having seen a man with his head just appearing above the surface of the water."

[1] "Bathing"—*Ph.* A misprint.

[2] *Cortelassen*—cutlasses. Plate cm, of Dr. Meyrick's *Ancient Arms and Armour* (vol. ii) contains a representation of an "Andrew Ferrara", which is described as "a coutel-hache, coutelaxe or coutelas". But the true original of the name is the Italian *cultellaccio* or *coltellaccio*, meaning literally a large (heavy) knife. *Cultellazius*, the Latinized form of this word, occurs in a list of forbidden weapons, in a statue of the city of Ferrara, A.D. 1268. See Muratori, *Antiq. Italic.*, vol. ii, col. 515.

but for that it began more and more to blow, and the ice therewith brake in peeces, they did nothing at all.

After that W. Barents had begun this voyage vpon the fifth of June, 1594, and at that time (as I sayd before) set saile out of the Texell, the 23 of the same month arriving at Kilduin in Muscouia, and from thence tooke his course on the north side of Noua Zembla, wherein he continued till the first of August, with such aduentures as are before declared, till he came to the Island of Orange:[1] after he had taken all that paine, and finding that he could hardly get through, to accomplish and ende his pretended[2] voyage, his men also beginning to bee weary and would saile no further, they all together agreed to returne back againe, to meet with the other ships[3] that had taken their course to the Weygates, or the Straights of Nassawe,[4] to know what discoueries they had made there.

Theire returne backe againe.

[1] *Tottet Eglandt van Oraengien.* [2] Intended.

[3] Namely, those of Zeelandt and Enkhuysen, from which they had separated at Kildin on the 29th of June.

[4] *De Weygats ofte Strate de Nassou.* This name has given occasion to much curious criticism. The Dutch, not unnaturally, have sought its explanation in their own language, in which *waaien* means "to blow", "to be windy", and *gat* is "a strait" or "passage"; so that *waaigat* would be "a passage wherein the wind blows strongly". And it is indisputable that this name has, on various occasions, been so applied by the seamen of that nation. Thus, we find a *Waaigat* in Baffin's Bay, one in Spitzbergen, and another by the Straits of Magellan; and even the roads between the Helder and Texel have, from an early period, borne the same name. See "Prize Essay on the Netherlandish Discoveries," by R. G. Bennet and J. G. van Wijk, in *Nieuwe Verhandelingen van het Provincial Utrechtsche Genootschap, etc.*, vol. vi (1827), p. 41.

Others, instead of the Dutch *waaien*, have taken the German *weihen* as the root, and thus made *weihgat* to mean the "sacred straits".

J. R. Forster, in his *Voyages and Discoveries in the North* (Engl. edit.), p. 273, contends, however, that the name is of Russian origin, and explains it as follows:—"Barentz found afterwards in Nova Zembla some carved images on a head-land near the straits, in consequence of which he called it *Afgoden-hoek*, the 'Cape of Idols'. Now, in the Sclavonian tongue, *wajat* means 'to carve', 'to make an image'. *Wajati-Noss* would, there-

The first of August they turned their course to saile backe againe from the Islands of Orange, and sailed west and west by south 6 [24] miles to the Ice Point.

From the Ice Point to the Cape of Comfort,[1] they sailed west and somewhat south 30 [120] miles: betweene them both there lyeth very high land, but the Cape of Comfort is very low flat land, and on the west end thereof there standeth foure or fiue blacke houels or little hilles like country houses.[2]

Upon the 3 of August, from the Cape of Comfort they

fore, be the 'Carved' or 'Image Cape'; and this seems to me to be the true origin of the word *Waigats*, which properly should be called *Wajatelstwoi Prolïw*, 'the Image Straits'." So convinced was Forster of the correctness of his conjecture, that in another part of his work (p. 413) he did not hesitate to assert that the Russians themselves give to the Afgoeden-hoek the name of Waijati Nos; and this strange derivation of the word Waigats has found supporters not only among foreign, but even among Russian writers. See *Barrow*, p. 137; *Berch*, p. 30.

But Lütke, who has fully investigated the subject, adduces as proof against these fanciful etymologies, first (p. 30), that the name recorded by the Dutch themselves is Waigatz [Weygats], and not Waigat, the Russian termination *tsch* being changed by them into *tz*, in the same way as in Pi*tz*ora for Pe*tsch*ora, etc.; secondly, that the name Waigatsch properly belongs to the island alone, and not to the straits; thirdly, that this name was known to the Englishman Burrough in 1556, nearly forty years before the first voyage of the Hollanders; and lastly (p. 31), that the Russians have never called the Cape of Idols Waiyati Nos, but always Bolwánskyi Muis, from *bolwàn*, a rough image.

Lütke adds that the true derivation of the name in question is as difficult to be determined as that of Kolguew, Nokuew, Kildin, Warandei, etc., which are probably the remains of the languages of tribes now extinct. But, at the same time, he directs attention to Witsen's assertion (which appears to have been altogether overlooked by previous writers), that the island of Waigatsch received its name from one Iwan Waigatsch—"het Eiland Waigats, dat zijn naem heeft van Ivan, of Ian Waigats;"—a derivation which is very probable, and certainly far more reasonable than any of the etymologies above recited.

[1] *De Cape des Troosts*—Cape Comfort; the same which Phillip had previously translated "Cape Trust". See page 22, note 4.

[2] *Swarte heuvels ghelijck boeren huysen*—black hillocks, like peasants' huts.

wound north-ward, and sailed 8 [32] miles north-west and by north, and north north-west; and about noone they wound south-ward till euening, and sailed south and by west, and south-south-west 7 [28] miles, and then came to a long narrow point of land one Cape Nassaw.[1]

In the euening they wound north-ward againe, and sailed north and by east 2 [8] miles; then the winde came north, and therefore they wound west-ward againe, and sailed north north-west one mile [4 miles]; then the wind turned east, and with that they sailed from the 4 of August in the morning till noone west and by north 5 [20] or 6 [24] miles; after that they sailed till euening south-west 5 [20] miles and after that south-west 2 [8] miles more, and fell vpon a low flat land, which on the east-end had a white patche or peece of ground.

After that they sailed till morning, being the 5 of August, west south-west 12 [48] miles,[2] then south-west 14 [56] miles, and then west 3 [12] miles till the 6 of August.

The 6 of August they sailed west south-west 2 [8] or 3 [12] miles; then south-west, and south-west and by south, 4 [16] or 5 [20] miles; then south-west and by west 3 [12] miles, and then south-west and by west 3 [12] miles; and after that west south-west and south-west and by south 3 [12] miles, till the 7 of August.

The 7 of August till noone they sailed 3 [12] miles west south-west, then 3 [12] miles west, and then they wound south-ward till euening, and sailed 3 [12] miles south-east and south-east and by east, then againe west south-west 2 [8] miles, after that they sailed south 3 [12] miles, till the 8 of August in the morning, with a west south-west winde.

The 8 of August they sailed south-east and by south 10 [40] miles, and then south-east and by east vntil euening 5

[1] *Ende quamen by een laghen slechten hoeck te landt aen de Cape de Nassauwen*—and came to a low, flat point, at Cape Nassau.

[2] "5 miles"—*Ph.*

[20] miles, and then came to a low flat land, that lay south-west and by south, and north-east and by north, and so sailed 5 [20] miles more, and there they had 36 fadome deepe, 2 [8] miles from the land, the ground blacke sand; There they sailed towards the land, till they were at 12 fadome, and halfe a mile [2 miles] from the land it was stony ground.

From thence the land reacheth south-ward for 3 [12] miles, to the other low point that had a blacke rocke lying close by it; and from thence the land reacheth south south-east 3 [12] miles, to another point; and there lay a little low island from the point, and within halfe a mile [2 miles] of the land it was flat ground, at 8, 9, and 10 fadome deepe, which they called the Black Island,[1] because it showed blacke aboue; then it was very mistie, so that they lay in the wind[2] and sailed 3 [12] miles west north-west; but when it cleared vp, they wound towards the land againe, and the sunne being south [$\frac{1}{4}$ to 11 A.M.], they came right against the Blacke Island, and had held their course east south-east.

There W. Barents tooke the height of the sunne, it being vnder 71 degrees and $\frac{1}{3}$; and there they found a great creeke, which William Barents iudged to be the place where Oliuer Brunel[3] had been before, called Costinesarth.[4]

[1] *Het swarte Eylandt.*

[2] *Zijt aen de wint leyden*—they lay to the wind.

[3] *Oliphier Brunel.* A native of Brussels, properly named Oliver Bunel, who traded to the north coasts of Russia in a vessel from Enckhuysen, and was lost in the river Petchora. The process by which Bunel has been made to become an Englishman, under the name of "Bennel", "Brunell", or "Brownell", is explained in the Introduction.

[4] *Costinesarch*, in the original Dutch text; *Costinclarch*, in the Amsterdam French version of 1598; *Constint-sarch*, or *Constantin zaar*, as it is called by Witsen in his *Noord en Oost Tartarije*, p. 918; *Constant Search*, according to Forster's ingenious hypothesis, p. 415; *Coasting Search*, as suggested by Barrow, p. 159. This name, which has scarcely ever been written twice alike, and which has given occasion to so much speculation as to its origin, is properly *Kostin-schar*, *i. e.*, "Kostin Straits, or Passage"; it being the channel by which the Meyduscharski Island (*i.e.*, "the island lying between the straits"), is separated from

From the Blacke Island, they sailed south and south and by east to another small[1] point 3 [12] miles, on which point there stood a crosse, and therefore they called it the Crosse Point;[2] there also there was a flat bay, and low water,[3] 5, 6, or 7 fadome deep, soft ground.[4]

From Crosse Point they sailed along by the land south south-east 4 [16] miles, and then came to another small[5] point, which behinde it had a great creeke, that reached east-ward: this point they called the Fifth Point or S. Lau-

the main land of Novaya Zemlya. Lütke, from whom (p. 22) the above definition is taken, explains further (p. 245), that "among Novaya Zemlya navigators, *schar* is properly the name of a strait or passage, which goes directly through or across an island or country, forming a communication between two distinct seas. For one that merely separates an island from the mainland, or otherwise forms part of one sea alone, the appropriate designation is *salma*. Thus, Matotschkin Schar, Yugorskyi Schar, etc., are properly so called; but Kostin Schar, as a walrus hunter told me, 'is styled a *schar* only through stupidity, as its correct designation would be *Kostin Salma*'."

Nevertheless, in justice to those who first gave the name of Kostin *Schar* to this strait, it must be remarked, that it was regarded by them as actually passing through the mainland of Novaya Zemlya, and as forming a communication with the Kara Sea. It is thus shown in the early maps; and Witzen (p. 918) expressly states—"Het ys dryft *door Nova Zemla* heen, *en comt by Constint Sarch*, of Constantin Zaar, *uit*."

It is the passage to the south of the island which is more especially named Kostin Schar, or Kostin Salma. That to the north is the Podryésof Passage (Podrjesow Schar). See *Lütke*, p. 315.

As regards the etymology of the word *Schar*, Lütke says (p. 245) that he was unable to satisfy himself. "The Samoyedes themselves regard it as a foreign term; and by some it is thought to come from the Finnish word *Schar* or *Skar*." Can the *shard* of Spencer have any connection with it?

> "Upon that shore he spyéd Atin stand
> There by his maister left, when late he far'd
> In Phædria's flitt barck over that perlous shard."
>
> *Faerie Queene*, II, vi, 38.

[1] *Schlechten*—flat.
[2] *Cruijs-hoeck*.
[3] *Slecht water*—shallow water.
[4] *Steeck grondt*—*stiff* ground.
[5] *Sclechten*—flat.

rence Point.[1] From the Fifth Point they sailed to the Sconce Point[2] 3 [12] miles, south south-east, and there lay a long blacke rocke close by the land, whereon there stood a crosse; then they entered into the ice againe, and put inward to the sea[3] because of the ice. Their intent was to saile along the coast of Noua Zembla to the Wey-gates, but by reason that the ice met them they wound west-ward, and from the 9 of August in the euening, till the 10 of August in the morning, sayled west and by north 11 [44] miles, and after that 4 [16] miles west north-west, and north-west and by west, the winde being north; in the morning[4] they wound east-warde againe, and sailed vntill euening 10 [40] miles east and east and by south; after that east and east and by north 4 [16] miles, and there they saw land, and were right against a great creeke, where with their boat they went on land, and there found a faire hauen 5 fadome deepe, sandy ground. This creeke on the north side hath 3 blacke points, and about the 3 points[5] lyeth the road, but you must keepe somewhat from the 3 point, for it is stonie, and betweene the 2 and 3 point there is another faire bay, for north-west, north, and north-east winds, blacke sandy ground. This bay they called S. Laurence Bay, and there they tooke the height of the sunne, which was 70 degrees and $\frac{3}{4}$.

From S. Laurence Bay, south south-east 2 [8] miles to Sconce Point, there lay a long[6] blacke rocke, close by the land,[7] whereon there stood a crosse; there they went on land

[1] *Den vijfden hoeck ofte S. Laurens hoeck.*

[2] *Schans hoeck.* "Barrow (p. 141) calls this headland *Sion's* Point."—*Lütke*, p. 20. This is clearly a clerical or typographical error for "Sconce Point", of a character similar to that in the first (Paris) edition of the *Histoire Générale des Voyages*, cited by Barrow, p. 139, whereby "Baie de Loms"—Lomsbay—is converted into "Baie de St. Louis!"

[3] *Leydent zeewaerts in*—tacked to seaward.

[4] *Des middaeghs*—at noon.

[5] *Om den derden hoeck*—near the *third* point.

[6] *Laghe*—low.

[7] *Aent last vast:* a typographical error in the original Dutch. It should be *aent landt vast.*

with their boat, and perceiued that some men had bin there, and that they were fled to saue themselues;[1] for there they found 6 sacks with rie-meale buried in the ground, and a heap of stones by the crosse, and a bullet for a great piece, and there abouts also there stood another crosse,[2] with 3 houses made of wood, after the north-countrey manner: and in the houses they found many barrels of pike-staues,[3] whereby they coniectured that there they vsed to take salmons,[4] and by them stood 5 or 6 coffins, by graues,[5] with dead men's bones, the coffins standing vpon the ground all filled vp with stones; there also lay a broken Russia ship,[6] the keele thereof being 44 foot long, but they could see no man on the land: it is a faire hauen for all winds, which they called the Meale-hauen,[7] because of the meale that they found there.

From the black rocke or cliffe with the crosse, 2 [8] miles south south-east, there lay a low island a little into the sea, from whence they sailed 9 [36] or 10 [40] miles south south-

[1] *Om onsent wil gevlucht waren*—were fled on our account.

[2] *Ende een gotelincks schoot van daer stont noch een cruijs*—and a falconet-shot from thence stood another cross. Lütke (p. 20) criticises Barrow for saying (p. 141) that the Hollanders found here, among other things, "a large cannon shot"; but it is clear that the latter has merely modernized Phillip's words "a bullet for a great piece".

[3] *Veel tonnen dugghen*—a quantity of pipe-staves. Here is a curious *double* error. In the first place, as *dugghen* are "staves" (for casks), *tonnen-dugghen* are simply "cask-staves" or "pipe-staves", and not casks (barrels) of pipe-staves. And secondly, the word *pipe* has been misprinted *pike*; so that altogether, without referring to the original Dutch, it was quite impossible to imagine what was meant.

[4] *Daer deur wy vermoeden datter eenighen Salm-vang moeste zijn*—whence we conjectured that there must be some salmon fishery here.

[5] *By de graven*—by the graves.

[6] *Lodding* (intended for the Russian word *lodya*)—a boat.

[7] *Meel-haven*—apparently the Strogonov Bay of Lütke, who, in his account of his third voyage (p. 316), speaks of a tradition, according to which this was formerly the residence of some natives of Novogorod of that name. These settlers are not mentioned in the chronicles, nor is anything known respecting them, or the date or cause of their emi-

east; there the height of the sunne[1] was 70 degrees and 50 minutes, when it was south south-west.

From that island they sailed along by the land 4 [16] miles south-east and by south; there they came to 2 islands, whereof the uttermost lay a mile [4 miles] from the land; those islands they called S. Clara.

Then they entered into the ice again, and wound inward to sea, in the wind,[2] and sailed from the island[3] vntill evening, west south-west 4 [16] miles, the wind being north-west; that evening it was very mistie, and then they had 80 fadom deepe.

Then againe they sailed south-west and by west, and west south-west 3 [12] miles; there they had 70 fadome deepe, and so sayled till the thirteenth of August in the morning, south-west and by west foure [16] miles; two houres before they had ground at fiftie sixe fadome, and in the morning at fortie five fadome, soft muddy ground.

gration. But assuming the remains found by Barentsz and his companions to be those of the Strogonovs, he deems it not unreasonable to place their arrival some twenty or thirty years earlier than the visit of the Hollanders; which date would correspond with the reign of John the Terrible (Yoan Grosnui), a period when the Novogoroders had the greatest reason to emigrate into the regions far distant from their native country. Indeed, it is not improbable that some of them may, at that time, have been banished to Novaya Zemlya. Lütke adds: "It is worthy of remark that our walrus-hunters give the name of Meal Cape to the western headland of Strogonov Bay; which name would seem to have originated in the six sacks of rye-meal which Barentz saw there. The remains of the dwellings of the Strogonovs lie close to Meal Cape."—P. 317.

The same writer adverts also, but with disfavour, to the further tradition, that "the Strogonovs were visited by certain monsters with iron noses and teeth". But when it is considered that the walrus must have been previously unknown to these natives of Novogorod, it is not unreasonable to imagine that animal to have given rise to what might otherwise well be regarded as a fable.

[1] *Den* 12 *Aug.*—on the 12th of August (omitted).

[2] *Ende wendent tzeewaert in aen de wint*—and tacked to seaward, hugging the wind.

[3] *Van den eylanden*—from the islands.

Then they sayled till noone sixe [24] miles south-west, and had twentie foure fadome deepe, black sandie ground; and within one houre after they had two and twentie fadome deepe, browne reddish sand; then they sailed sixe [24] miles south-west, with fifteene fadome deepe, red sand; after that two [8] miles south-west, and there it was fifteene fadome deepe, red sand, and there they sawe land, and sayled forward south-west untill evening, till we were within halfe a mile [2 miles] of the land, and there it was seven fadome deepe, sandy ground, the land being low flat downes reaching east and west.

Then they wound from the land and sailed north, and north and by east 4 [16] miles; from thence they wound to land againe, and sayled til the 14 of August 5 [20] or 6 [24] miles south-west, sailing close by the land, which (as they gesse[1]) was the island of Colgoyen;[2] there they sailed by the lād east-ward 4 [16] miles; after that 3 [12] miles east, and east and by south; then the weather became mistie, whereby they could not see the land, and had shallow flat water[3] at 7 or 8 fadome; then they took in the marsaile[4] and lay in the wind[5] till it was cleare weather againe, and then the sunne was south south-west [$\frac{3}{4}$ p. 11 a.m.], yet they could not see the land: there they had 100 fadome deepe, sandy ground; then they sailed east 7 [28] miles; after that againe 2 [8] miles east south-east, and south-east and by east; and againe till the 15 of August in the morning, 9 [36] miles east south-east; then from morning till noone they sailed 4 miles east south-east, and sailed over a flat or sand of 9 or 10 fadome deepe, sandy ground, but could see

[1] Guessed.

[2] The large island of Kólguev, situate between Kanin Nos (Cape Kanin) and the entrance of the River Petchora. Its north-western extremity, according to Lütke's observations (p. 324), is in 69° 29′ 30″ N. lat., and 48° 55′ E. long.

[3] *Vlack water*—shallow water.

[4] *Marseylen*—topsails.

[5] *Leyde aen de wind*—lay to the wind.

no land; and about an houre before noone it began to waxe deeper, for then wee had 12 and 13 fadome water, and then wee sayled east south-east 3 [12] miles, till the sunne was south-west [1 p.m.].

The same daye the sunne being south-west,[1] William Barents tooke the height thereof, and found it to be elevated above the horizon 35 degrees, his declination being 14 degrees and $\frac{1}{4}$, so y^{t} as there wanted 55 degrees of 90, which 55 and 14 degrees and $\frac{1}{4}$ being both added together, made 69 degrees 15 minutes, which was the height of the Pole in that place, the wind being north-west; then they sailed 2 [8] miles more east-ward, and came to the islands called Matfloe and Delgoy,[2] and there in the morning they meet with the other shippes of their company, being of Zelandt and Enck-huysen,[3] that came out of Wey-gates the same day; there they shewed each other where they had bin, and how farre each of them had sailed, and discouered.

The ship of Enck-huysen had past the straights of Wey-gates, and said, that at the end of Wey-gates he had found a large sea,[4] and that they had sailed 50 [200] or 60 [240] miles further east-ward, and were of opinion that they had been about the riuer of Obi,[5] that commeth out of Tartaria, and that the land of Tartaria reacheth north-east-ward againe from thence, whereby they thought that they were not far

[1] This note of the bearing of the sun is only approximative, since the observation of the variation of the needle made on July 3rd (p. 10), shows that the sun came to the meridian between S.S.W. and S.W. by S.

[2] Matvyéyeva Ostrov and Dolgoi Ostrov, that is, Matvyéyev's Island and Long Island.—*Lütke*, p. 20.

[3] These vessels were the Swan of Der Veere in Zeelandt, commanded by Cornelis Corneliszoon Nai, and the Mercury of Enckhuysen, commanded by Brandt Ysbrandtszoon, otherwise called Brandt Tetgales.

[4] *Een ruyme zee*—an *open* sea.

[5] *Ontrent de lenghte van de revier Obi*—about *the longitude of* the river Obi. In this, however, they were in error, as they were still only on the eastern side of the Kara Sea.—See *Lütke*, p. 32.

from Cape Tabin,[1] which is ye point[2] of Tartaria, that reacheth towards the kingdom of Chathai, north-east and then southward.[3] And so thinking that they had discouered inough for that time, and that it was too late in the yeare to saile any further, as also that their commission was to discouer the scituation, and to come home againe before winter, they turned againe towards the Wei-gates, and came to an island about 5 miles great, lying south-east from Wei-gates on the Tartarian side, and called it the States Island;[4] there they found many stones, that were of a cristale mountaine,[5] being a kind of diamont.

When they were met together (as I sayd before) they made signes of ioy, discharging some of their ordinance, and were merry, the other shippes thinking that William Barents had sailed round about Noua Zembla, and had come backe againe through the Wei-gates: and after they had shewed each other what they had done, and made signs of ioy for their meeting, they set their course to turne backe againe for Holland; and vpon the 16 of August they went vnder the islands of Matfloe and Delgoy, and put into the road, because the wind was north-west, and lay there till the 18 of August.

The 18 of August they set saile, and went forward west north-west, and almost west and by north, and so sailed 12 [48] miles; and then west and by south 6 [24] miles, and came to a sand of scarce 5 fadome deepe, with a north-west wind; and in the evening they wound northward, and sailed east north-east 7 [28] or 8 [32] miles, the wind being

[1] *De Caep Tabijn*—the northernmost extremity of Siberia, now known by the name of Cape Taimur or Taimyr. It is the *Tabis* of Pliny.

[2] *Uythoeck*—the furthest point.

[3] *Nae't z. o. en voort nae't zuyden*—towards *south*-east, and then southwards.

[4] *Staten Eylandt*—the Myasnoi Ostrov (Flesh Island) of the Russians. —*Lütke*, p. 31.

[5] *Van cristal montaigne*—of rock-crystal.

northerly; and then they wound westward, and sailed till the 19 of August in the morning, west 2 [8] miles; then 2 [8] miles south-west, and after that 2 [8] miles south-east; there they wound west-ward againe, and sailed till evening with a calme, and after that had an east winde, and at first sailed west north-west, and north-west and by west 6 [24] or 7 [28] miles, and had ground at 12 fadome: then till the 20 of August in the morning, they sayled west north-west, and north-west and by west, 7 [28] miles with an easterly wind; and then againe sailed west north-west, and north-west and by west 7 [28] miles; then west north-west 4 [16] miles, and drawe[1] forward till euening with a calme: after that they sailed west north-west and north-west and by west 7 [28] miles, and in the night time came to a sand of 3 fadome deepe right against the land, and so sailed along by it, first one mile north, then 3 [12] miles north north-west, and it was sandy hilly land, and many points:[2] and then sailed on forward with 9 or 10 fadome deepe, along by the land till noone, being the 21 of August, north-west 5 [20] miles; and the west point of the land, called Candinaes,[3] lay north-west[4] from them 4 [16] miles.

From thence they sailed 4 [16] miles north north-west, and then north-west and by north 4 [16] miles, and 3 [12] miles more north-west, and north-west and by north, and then north-west 4 [16] miles, til the 22 of August in the morning: and that morning they sailed north-west 7 [28] miles, and so till euening west north-west and north-west and by west 15 [60] miles, the wind being north; after that 8 [32] miles more, west north-west; and then till the 23 of August at noone, west north-west 11 [44] miles, the same day at noone the sunne was elevated aboue the horizon 31

[1] *Dreeuen*—drifted. [2] *Steijlhoockigh*—precipitous.

[3] Kanin Nos, or Cape Kanin, at the north-eastern extremity of the White Sea, in 68° 33′ 18″ N. lat., and 43° 16′ 30″ E. long.—*Lütke*, p. 341.

[4] *W.n.w.*—W.N.W.

degrees and $\frac{1}{3}$ part, his declination was 11 degrees and $\frac{2}{3}$ partes; so that it wanted 58 degrees and $\frac{2}{3}$ of 90 degrees, and adding the declination being 11 degrees $\frac{2}{3}$ to 58 degrees and $\frac{2}{3}$ partes, then the height of the Pole was 70 degrees and $\frac{1}{3}$ part: then they sailed north-west, and north-west and by west, till euening 8 [32] miles; and then north-west and by west, and west north-west 5 [20] miles; and then vntill the 24 of August in the morning, north-west and by west 6 [24] miles; after that west, and west south-west 3 [12] miles, and then passed close by the island of Ware-huysen[1] in the roade. From Ware-huysen hither-ward, because the way is well knowne, I neede not to write thereof, but that from thence they sailed altogether homeward, and kept company together till they came to the Texel, where the ship of Ze- The end of this voyage
landt past by, and William Barents with his pinnace came vpon a faire day,[2] being the 16 of September, before Amsterdam, and the ship of Enck-huysen to Enck-huysen, from whence they were set foorth. William Barents' men brought a sea-horse to Amsterdam, being of a wonderfull greatnesse, which they tooke vpon a flake of ice, and killed it.

[1] *Wacrhuysen*—Wardhous, at the north-eastern extremity of Finmark, is in 70° 22′ N. lat., and 31° 5′ 35″ E. long.

[2] *Op kermis dagh*—on the day of the (Amsterdam) fair. During the time that Louis Bonaparte was King of Holland, the fair-day was changed from the 16th of September to the first Monday in the month, in honour of his birthday, which was the 2nd of September.

A BRIEFE DECLARATION OF A SECOND NAUIGATION MADE IN ANNO 1595, Behinde Norway, Moscouia, and Tartaria, towards the kingdoms of Cathaia and China.

THE 4 ships aforesaid being returned home about harvest-time, in anno 1594, they were in good hope that the voiage aforesaid would be done, by passing along through the Straights of Weygates, and specially by the report made by the 2 ships of Zelandt and Enck-huysen, wherein John Huyghen of Linschoten was committed,[1] who declared the manner of their trauell in such sort,[2] that the Generall States and Prince Maurice resolued, in the beginning of the next yeare, to prepare certaine ships, not only (as they went before) to discouer the passage, but to send certaine wares and merchandises thither, wherein the marchants might lade what wares they would, with certaine factors to sell the saide wares, in such places as they should arriue, neither

[1] *Dae Jan Huyghen van Linschoten comis op was*—whereof John Hugh van Linschoten was commissary or supercargo. This well-known traveller was born at Haarlem in 1563, and went at an early age to Portugal, whence he embarked for India. There he remained several years. Shortly after his return to Holland, he was appointed to take part in the first expedition to the North Seas, and sailed on board the Mercury of Enckhuysen (see page 36, note 3). He likewise accompanied the second expedition, and wrote an account of both voyages, as is mentioned more at length in the Introduction. He also published an account of his voyage to the East Indies, etc. Linschoten was afterwards treasurer of the town of Enckhuysen, and died there in 1633.—*Biogr. Univ.*

[2] *Die de saeck vry wat breedt voort stelde*—who represented the matter very favourably.

paying fraight nor custome. Peter Plantius,[1] a learned cosmographer, being a great furtherer and setter forward of this voiage, and was their chiefe instructer therein, setting downe the scituation of the coasts of Tartaria, Cathaia, and China; but how they lye it is not yet sufficiently discouered, for that the courses and rules by him set downe were not fully effected, by meanes of some inconueniencies that fell out, which, by reason of the shortnesse of time could not be holpen. The reasons that some men (not greatly affected to this voyage) vse to propound, to affirme it not possible to be done, are taken (as they say) out of some old and auncient writers: which is, y^t^ 350 miles[2] at the least of the North Pole on both sides are not to be sailed, which appeareth not to be true, for that the White Sea, and farther north-ward, is now sayled and daily fisht in, cleane contrary to the writings and opinions of auncient writers; yea, and how many places hath bin discouered that were not knowne in times past? It is also no marueile (as in the beginning of the first description of this voyage I haue sayd),[3] that vnder the North Pole for 23 degrees, it is as cold on both sides, one as the other, although it hath not beene fully discouered. Who would beleeue that in the Periudan mountaines,[4] and the Alpes, that lye betweene Spaine, Italie, Germanie, and France, there is so great cold, that the snow thereon neuer melteth, and yet lye a great deale nearer the sunne, then the

[1] *Petrus Plancius*, a celebrated theologian and mathematician, born in 1552, at Drenoutre in Flanders. He was one of the principal promoters and advisers of the various expeditions fitted out by the Dutch in the first years of their independence, so much to the advancement of science and to their own honour and advantage. At the synod of Dort, in 1619, Plancius was commissioned to revise the Dutch translation of the Old Testament in the "States Bible". He died at Amsterdam on the 25th May, 1622.—*Biogr. Univ.*

[2] The original has 305 miles, which are equal to 1220 geographical miles. The distance meant is from the pole to the Arctic circle.

[3] Page 5.

[4] *Gheberchte van Pirencen*—the Pyrences.

countries lying on the North Seas doe, being low countries.[1] By what meanes then is it so cold in those hilles? onely by meanes of the deepe vallies, wherein the snow lyes so deepe, that the sunne cannot shine vpon the ground, by reason that the high hilles keepe the sunne from shining on them. So it is (as I iudge) with the ice in the Tartarian Seas, which is also called the Ice Sea, about Noua Zembla, where the ice that commeth into those seas out of the riuers that are in Tartaria and Cathaia, can not melt, by reason of the great quantitie thereof, and for that the sun sheweth not high aboue those places, and therefore casteth not so great a heat, as it can easily melt: which is the cause that the ice lyeth there still, as the snowe doth in the hilles of Spaine aforesayd, and that the sayd ice maketh it farre colder there, then it is a greate deal neerer the Pole in the large seas;[2] and although those places that are not discouered, cannot bee so well described as if they were discouered, yet I thought good to say thus much for a memoriall; and now I will proceed to the declaration of the second voyage made into the North Seas.[3]

In anno 1595, the generall States of the vnited prouinces, and Prince Maurice, caused seuen shippes to bee prepared to sayle through the Wey-gates, or the Straights of Nassaue,[4] to the kingdome of Cathaia and China: two out of Amsterdam, two out of Zelandt, two out of Enck-huysen, and one out of Roterdam: sixe of them laden with diuers kindes of wares, marchandizes, and with money, and factors to sell the said wares; the seuenth beeing a pinace, that had commission, when the other shippes were past about the Cape de Tabin[5] (which is the furthest point of Tartaria), or

[1] *Als dese aen de Noordt Zee ligghende Nederlanden*—than these (our) Netherlands, which lie on the North Sea.

[2] *In de ruyme Zee*—in the *open* sea.

[3] *By den Noorden om*—round by the north.

[4] *De Waygats oft Strate de Nasson.* See page 27, note 4. By the Russians these straits are called Yugórskyi Schar.—*Lütke*, p. 29.

[5] Cape Taimur. See page 37, note 1.

so farre that they might saile foorth southward without any let or hinderance of the ice, to turne backe againe, and to bring newes thereof. And I being in William Barents ship, that was our chiefe pilote,[1] and James Hems-kerke chiefe factor,[2] thought good to write downe the same in order as it is here after declared, as I did the first voyage, according to the course and stretching of the land as it lyeth.

First, after we had been mustered at Amsterdam, and euery man taken an oath that was then purposely ministered vnto vs,[3] vpon the 18 of June wee sailed to the Texel, from thence to put to sea with other ships that were appointed to meet vs at a certaine day; and so to begin our voiage in the name of God.

The 2 of July, wee set saile out of the Texel, in the morning at breake of day, holding our course north-west and by north, and sayled about sixe [24] miles.

After that wee sailed north north-west 18 [72] miles, till the 3 of July in the morning, being then as we esteemed

[1] *Die opperste Piloot was.*

[2] *Opper Comis*—chief commissary or supercargo. Jacob Heemskerck was a native of Amsterdam, of a family of distinction still resident there. He took part in both the second and third voyages. He was afterwards employed in the navy of Holland, and served his country with great honour. In 1607, having the rank of vice-admiral, he commanded a fleet of twenty-six vessels sent against the Spaniards, and on the 25th of April fell in with the Spanish fleet, consisting of twenty ships and ten galleons, commanded by Don Juan Alvarez Davila. The engagement took place before Gibraltar; and on the second broadside Heemskerck had a leg carried away by a cannon-shot. He, however, continued to encourage his men, and retained his sword till he died. The Dutch gained a complete victory; seven vessels of the Spaniards were burned, and most of the remainder sunk; their admiral being killed, and his son taken prisoner. A superb monument was erected to Heemskerck in the old church at Amsterdam.—*Moreri; Biogr. Univ.*

[3] *Ons den behoorlijcken eedt afgenomen is*—we had been *duly* sworn. There is no reason for supposing that any special oath was administered, but merely the usual oath of service.

vnder 55 degrees; then the wind being north-west, and north north-west, calme weather, we sailed west and west and by south 4 [16] miles, till the 4 of July in the morning: after that, the winde being north north-west and rather more northerly, wee sayled west and west and by north 15 [60] miles, till the 5 of July in the morning, and after that 8 [32] miles more, till the sunne was west [¼ to 4 P.M.]

Then we wound about and sailed 10 [40] miles north-east, till the 6 of July in the morning, and so held on our course for the space of 24 [96] miles till the 7 July, the sunne being south [¾ p. 10 A.M.], and held the same course for 8 [32] miles, till midnight.

Then wee wound about and sailed west south-west fourteene [56] miles, till the ninth of July in the morning; and then againe wee wound north-eastward till evening, and so sayled about tenne [40] miles.

And then eighteene [72] miles more, east-ward,[1] till the tenth of July in the euening; then we wound about againe and sailed south-west, eight [32] miles, till the 11 of July, the sunne then being south-east [½ p. 7 A.M.]

Then wee wound north and north and by east, about sixteene [64] miles, till the twelue of July,[2] and then north and by west tenne [40] miles.

The 13 of July wee wound about againe, and sailed south-west and west south-west 10 [40] miles, till about three houres before euening; then wee wound againe, and sailed north north-east 10 [40] miles, till the 14 of July, the sunne being south south-east [9 A.M.], and then north and by east and north north-east 18 [72] miles, till the 15 of July in the morning: after that north and by east 12 [48] miles vntill euening; then wee saw Norway, and then wee sayled north and by east 18 [72] miles, till the 16 of July in the euening; at that time the sunne being north-west [½ p. P.M.]; and

[1] *Noorden ten oosten*—N. by E.

[2] *Ontrent zuyder son*—when the sun was about south. (Omitted.)

vpon the 17 of July, north-east and north-east and by north, 24 [96] miles, till the sunne was in the west [$\frac{3}{4}$ p. 3 P.M.]

Then againe wee sayled north-east,[1] 20 [80] miles, till the 18 of July, the sunne being north-west; from thence wee sayled north-west and by north 18 [72] miles, till the 19 of July, when the sunne was west.

From thence againe we wound about, north-east and by north and north-east, till the 20 of July, while sixe glasses were run out, in the first quarter,[2] and then stayed for our pinnace, that could not follow vs because the wind blew so stiffe: that quarter[3] being out, we saw our company lying to lee-ward,[4] to stay for vs, and when wee were gotten to them, wee helde our course (as before) till euening and sailed about 30 [120] miles.

Then we sayled south-east and by east 26 [104] miles, till the 21 of July in the euening, when we set our watch, and held on the same course for 10 [40] miles till the 22 of July, the sun being south south-east [9 A.M.]: the same euening,[5] the sun being south south-west [$\frac{3}{4}$ p. 11 A.M.], we saw a great whale right before our bough,[6] that lay and slept, which by the rushing of the ship that made towards it, and the noyse of our men, awaked and swamme away, or els wee must haue sailed full vpon her; and so wee sayled eight [32] miles, till the sunne was north north-west [$\frac{1}{4}$ p. 9 P.M.].

The twenty-third[7] of July wee sayled south-east and by south fifteene [60] miles, till the sunne was south south-west

[1] *N. ten o.*—N. *by* E.

[2] *Tottet seste glas int eerste quartier.*—Six half-hour glasses of the first watch would make the reckoned time to be 11 P.M. But from the context it would rather seem that the *morning* watch is meant, so that the time would be 7 A.M.

[3] Watch.

[4] *Op de ly legghen*—lying to.

[5] *Des naenoens*—in the afternoon.

[6] The bow of the ship.

[7] "Thirteenth."—*Ph.*

and saw land about foure [16] miles from vs. Then wee wound of from the land, when the sunne was about south south-west, and sayled twentie-foure [96] miles till euening, that the sunne was north-west.[1]

After that we sayled north-ward tenne [40] miles, till the twenty-fifth[2] of July at noone, and then north north-west eight [32] miles, till mid-night; then wee wound about againe, and sayled east south-east and south-east and by south, till the twenty sixe of July, the sunne being south, and had the sunne at seauentie one degrees and ¼.[3]

The sunne being south south-west, wee wounde about againe and sayled north-east and by north, till the seauen and twentie of July, the sunne being south; being vnder 72 degrees and ⅓ partes.[4]

After that, wee sayled full north-east[5] 16 [64] myles, till the 28 of July, the sunne being east [½ p. 4 A.M.]. Then we wound about againe south and by east, till the sunne was north-west, and sayled 8 [32] miles. After that, south-east and by south 18 [72] miles, till the 29[6] of July at midnight.

After that, we wound about againe, east and by north, and sayled eight [32] miles, till the 30 of July, when the sunne was north [½ p. 10 P.M.]; then we wound south south-east, with[7] calme weather, till the 31 of July, that the sunne was west north-west[8] [5 P.M.], and sayled sixe [24] miles.

From thence wee sayled east-ward 8 [32] myles, till the first of August about midnight, in calme faire weather, and saw Trumpsand[9] south-east from vs, the sunne being north [½ p. 10 P.M.], and wee being tenne [40] miles from the

[1] *Totten* 24 *n. w. son*—till N.W. sun [½ p. 7 P.M.] on the 24th.
[2] "Fifteenth."—*Ph.*
[3] 71° 15′ N. lat.
[4] 72° 20′ N. lat.
[5] *N. ten o.*—N. *by* E.
[6] "19."—*Ph.*
[7] *Meest*—mostly. (Omitted.)
[8] "North-west."—*Ph.*
[9] *Trompsont*—Troms-oe, a small island on the coast of Norway, in about 69° 40′ N. lat.

land; and so sayled till the sunne was east [½ p. 7 P.M.], with a litle cold gale[1] out of the east north-east; and after that, south-east 9 miles and a halfe [38 miles], till the sunne was north-west.

Then we wound about againe, being halfe a mile [2 miles] from the land, and sayled east and by north three [12] miles, till the 3 of August, the sunne south-west [1 P.M.]; and then along by the land about 5 [20] miles.

Then we wound about again, because there lay a rocke or sand, that reached about a mile and a halfe [6 miles] out from the land into the sea, whereon Isbrant, the uize-admiral,[2] stroke with his shippe: but the weather being faire and good, he got off againe. When he stroke vpon it, he was a litle before vs: and when we heard him cry out, and saw his shippe in danger, wee in all haste wound about; and the wind being north-east and by east, and south-east, and south-east and by south,[3] wee sayled 5 [20] or 6 [24] myles along by the land, till the sunne was south, vpon the 4 of August.

Then we tooke the height of the sunne, and found it to be seauentie and one degrees and ¼. At which time till noone[4] wee had calme weather: and hauing the wind southerly wee sayled east and by north, till the fifth of August, the sunne being south-east [½ p. 7 A.M.], the North Cape[5] lying about two [8] miles east from vs; and when the sunne was north-

[1] *Met weynich coelts*—with little wind.

[2] *Ysbrandt de vice admirael.* The admiral was Cornelius Nai. They had both taken part in the former expedition. See page 36, note 3. The title of admiral did not denote any fixed rank, but was given to the commander of the principal ship, under whose orders the others were. We should now call him the commodore.

[3] *De windt was n. o. ten o. ende z. o. meest z. o. ende z.*—the wind was N.E. by E. and S.E., *but mostly* S.E. *and* S.

[4] *Middernacht*—midnight.

[5] *De Noordt-caep.* The northernmost point of Europe; unless, indeed, we regard Spitzbergen as forming a portion of this quarter of the globe. The North Cape is not a part of the continent, but it is the extremity of a small island named Mager-oe.

west [½ p. 7 P.M.], the Mother and her Daughters[1] lay southward from vs four [16] miles, and in that time we sailed about fourteene [56] miles.

Then we sailed east north-east till the 6 of August, when wee had the sunne west north-west [5 P.M.], and then Isbrandt, the uize-admiral, came to vs with his ship, and so bating some of our sayles,[2] wee sayled about 10 [40] miles.

Then wee hoysed vp our sayles againe,[3] till the sunne was north-west, and after that halde vp againe[4] with an east and east north-east wind, and sailed south and by west with a stiffe gale till the 7 of August, that the sunne was south-east; then there came a ship of Enckhuysen out of the White Sea, and then we esteemed that wee had sailed about 8 [32] miles.

The sunne being south [¾ p. 10 A.M.], the North Cape lay south-west and by south from vs about a mile and a halfe [6 miles], and the Mother and her Daughters south-west from vs about 3 [12] miles; then hauing an east and by north wind we wound about, and held our course north and by east, and sailed 14 [56] miles till the 8 of August, when the sunne was south-west [1 P.M.]; then we wound south and by east, and so held her course till the 9 of August, that the sunne was south; and then we saw a high point of land south-east from vs, and another high point of land south-ward,[5] about 4 [16] miles from vs, as we gest,[6] and so we sailed about 14 [56] miles: and then againe we

[1] *De Moer mette Dochters.* Three remarkable islands, so called, lying off the coast of Norway.

[2] *Doen quam tschip van Ysbrandt de vice admirael ende wy tsamen, ende maeckten malcanderen seer reddeloos*—then the ship of Ysbrand, the vice-admiral, and ours ran foul, and damaged each other very much.

[3] *Doen streecken wy de seylen*—then we *took in* our sails. The translator appears to have carried this expression into the preceding sentence, of which he evidently did not understand the meaning.

[4] Hauled them up again.

[5] *S. w.*—South-*west.*

[6] Guessed, *i.e.*, estimated.

wound north-east and by north, till the 10 of August, the sun being east [½ p. 4 A.M.], and sailed about 8 [32] miles; after that we wound south-ward againe, till the sunne was north-west [½ p. 7 P.M.], and sailed, as we gest, 10 [40] miles.

Then wee wound about againe, when the North Cape lay west and by south from vs about 9 [36] miles, the North-kyen[1] being south and by west from vs about 3 [12] miles, and sailed north north-east till the 11 of August, in very mistie weather 10 [40] miles, till the sunne was south [¾ p. 10 A.M.]

From thence wee wound about againe, with an east north-east wind, and sailed south-east and by south 8 [32] miles, till the sunne was south-west [1 P.M.] vpon the 12 of August; then the North-kyen lying south-west and by south from vs about 8 [32] miles, we lay and draue at sea, in calme weather,[2] till the 13 of August, when the sunne was south south-west [¾ p. 11 A.M.], and in that time sailed about 4 [32] miles.

Then we sailed south-east and by east about 4 glasses,[3] and the Iron-hogge with her companie (being marchants)[4] took their course south-ward, and wee sailed till the 14 of August (when the sunne was south) about 18 [72] miles, and from thence for the most part held one course till the 15 of August, the sunne being east, and there we cast out the lead and found 70 fadome deepe, and sailed 38 [152] miles till the sunne was south.

The sunne being south,[5] and the height thereof being

[1] *Noordtkien*. The extreme northern point of the main land of Norway, and consequently of the continent of Europe.

[2] *Soo dreven wy in stilte*—so we drifted in a calm.

[3] Two hours.

[4] These were some merchant vessels, bound for the White Sea, with which the expedition had fallen in, and which now parted from it.

[5] Here again, as on the 15th of August (see page 36, note 1), the note of the sun's bearing can only be regarded as approximative. It must, in fact, be understood to mean when the sun came to the meridian.

taken, it was found to be 70 degrees and 47 minutes; then in the night time wee cast out the lead, and found ground at 40 fadome, it being a bancke; the sunne being north-west [½ p. 7 P.M.], we cast out the lead againe and had ground at 64 fadome, and so wee went on east south-east till the 16 of August, the sunne being north-east [½ p. 1 A.M.], and there the line being out, we found no ground at 80 fadome; and after that we sailed east and east and by south, and in that time wee cast the lead often times out, and found ground at 60 and 70 fadome, either more or lesse, and so sailed 36 [144] miles, till the sunne was south.

Then we sailed east, and so continued till the 17 of August, the sunne being east [½ p. 4 A.M.] and cast out our lead, and found 60 fadome deepe, clay[1] ground; and then taking the height of the sunne, when it was south-west and by south, we found it to be 69 degrees and 54 minutes, and there we saw great store of ice all along the coast of Noua Zembla, and casting out the lead had 75 fadome soft[1] ground, and so sayled about 24 [96] miles.

After that we held diuers courses because of the ice, and sayled south-east and by east and south south-east for the space of 18 [72] miles, till the 18 of August, when the sunne was east, and then wee cast out the lead againe, and found 30 fadome soft[2] ground, and within two houres after that 25 fadome, red sand, with small shels;[3] three glasses[4] after that we had ground at 20 fadome, red sand with blacke shels,[5] as before; then we saw 2 islands, which they of Enckhuysen gaue the names of Prince Maurice and his brother,[6] which lay from us south-east 3 [12] miles,

[1] *Steeck*—stiff; that is, good for anchorage. [2] *Steeck*—stiff.

[3] *Met veel cleyne stipkens*—with many small specks.

[4] An hour and a half. [5] *Swarte stipkens*—black specks.

[6] *Zijn Excell. van Oraengien ende zijn broeder*—his Excellency of Orange and his brother. These islands were so named by Cornelius Nai on the first voyage. But, according to Linschoten, *Voyagie, ofte Schip-*

being low land, and then we sailed 8 [32] miles, till the sunne was south. [$\frac{3}{4}$ p. 10 A.M.]

Then we sailed east, and oftentimes casting out the lead we found 20, 19, 18, and 17 fadome deepe, good grounde

vaert van by Noorden om, *etc.*, fol. 19, retr, Orange Island was so called in honour of Prince Maurice's *father* and the Princess of Orange.

Lütke (p. 32) identifies Maurice Island with Ostrov Dolgoi or Long Island, and Orange Island with Bolschoi Selénets or Great Greenland; and he is of opinion that the Hollanders, or at all events Linschoten, had no knowledge of Matvyéyev Island. But this is hardly consistent with that able navigator's previous identification of the latter island with Matfloe, where (as is mentioned in page 36 of the present work) the vessels of Nai and Barentsz met on the first voyage. And, indeed, it may be demonstrated that Maurice Island is not Dolgoi, but Matfloe or Matvyéyev Island; that Orange Island is the small island, named Ostrov Golets, close to the northern extremity of Long Island or Dolgoi; and that Dolgoi itself is the Land of New Walcheren, which the Dutch hesitated to describe as an island or as a portion of the mainland, but which Lütke (p. 32) erroneously deems to be the latter.

Premising that Linschoten's vessel, like that of Barentsz, passed between Matfloe and Dolgoi, the following description of the *three* islands above mentioned, given by Linschoten, will be found to be as conclusive as it is clear and intelligible. In fol. 18, that writer says:—"The island that lay to the north of us appeared to be of a roundish form, and on the side past which we sailed it was to the sight a short mile [3 or 4 miles] in extent. To the south of this island, and about a long mile [4 or 5 miles] distant, lay another island, which was the smallest and likewise the middlemost of the three. And from this middlemost island, about a short mile [3 or 4 miles] distant to the S.E., lay the third or southernmost island, which in appearance was much the largest, and which, as we sailed past it, lay on our left hand, and seemed on that side to be about a long mile [4 or 5 miles] in extent; but when on the other side, as we looked southwards at it, its west coast extended as far as we could see from the topmast, so that we doubted whether it was part of the continent or an island." And in the chart which accompanies these remarks, Linschoten has the following note:—"Maurice Island lies with the Land of New Walcheren N.N.W. and S.S.E., about 2 [8] miles apart; and with the Island of Orange it lies N. and S., a long mile [4 or 5 miles] distant."

On referring to Lütke's chart, it will at once be manifest how closely Maurice Island, New Walcheren, and Orange Island, as thus described, correspond with Matvyéyev Island or Matfloe, Long Island or Dolgoi,

mixed with blacke shels,[1] and saw the Wey-gates (the sunne being west) [¾ p. 3 P.M.], which lay east north-east from vs about 5 [20] miles; and after that we sailed about 8 [32] miles.

Then we sailed vnder 70 degrees,[2] vntill we came to the Wey-gates, most part through broken ice; and when we got to Wey-gates, we cast out our lead, and for a long time found 13 and 14 fadome, soft[3] ground mixed with blacke shels;[4] not long after that wee cast out the lead and found 10 fadome deepe, the wind being north, and we forced to hold stifly aloofe,[5] in regard of the great quantity of ice, till about midnight; then we were forced to wind north-ward, because of certaine rocks that lay on the south side of Wey-gates, right before vs about a mile and a halfe [6 miles], hauing ten fadome deepe: then wee changed our course, and sailed west north-west for the space of 4 glasses,[6] after that we wound about againe east and east and by south, and so entred into Wey-gates, and as wee went in, we cast out the lead, and found 7 fadome deepe, little more or lesse, till the 19 of August; and then the sunne being south-east [½ p. 7 A.M.] we entered into the Wey-gates, in the road, the wind being north.

The right chanell betweene the Image Point[7] and the

and Golets Island, respectively; and if to this be added, that in that chart the passage between the islands is in about 69° 30′ N. lat., and that Linschoten, when distant from Maurice Island, by estimation, 10 [40] miles W. by N. or nearly W., found himself to be in 69° 34′ N. at., while William Barentsz, when 2 [8] miles W. from the islands, made his latitude to be 69° 15′ N., there will remain no room for doubt on the subject.

[1] *Meest steeck grondt met swarte stipkens ghemenght*—mostly stiff ground mixed with black specks.

[2] *Van de* 70 *graden*—from the 70th parallel of north latitude.

[3] *Steeck*—stiff. [4] *Stipkens*—spots.

[5] *Ende was ghestadich hout loef ende draghende*—and we kept continually luffing and falling off before the wind.

[6] Two hours.

[7] *Beeldhoeck*. See page 27, note 4.

Samuters land[1] was full of ice, so that it was not well[2] to be past through, and so we went into the road, which we called the Trayen Bay,[3] because we found store of trayen-oyle there: this is a good bay for the course of the ice,[4] and good almost for all windes, and we may saile so farre into it as we will at 4, 5, and 3 fadome, good anchor-ground: on the east side it is deepe[5] water.

The 20 of August, the height of the sunne being taken with the crosse-staffe,[6] wee found that it was elevated aboue the horizon 69 degrees 21 minuts,[7] when it was south-west and by south, being at the highest, or before it began to descend.

The 21 of August we went on land within the Wey-gates[8] with foure and fiftie men, to see the scituation of the countrey, and being 2 [8] miles within the land, we found many vel-werck trayen, and such like wares,[9] and diuers foot-steps of men and deere; whereby wee perceiued that some men dwelt thercabouts, or else vsed to come thither.

And to assure vs the more thereof, wee might perceiue it by the great number of images, which we found there upon the Image or Beelthooke[10] (so called by us) in great aboun-

[1] *De Samiuten landt*—a part of the country of the Samoyedes, lying in the extreme north-east of the present government of Archangel.

[2] *Wel moghelijck*—well possible.

[3] *Traenbay*—Train-oil Bay.

[4] *Den ysganck*—the drifting of the ice.

[5] *Diepste*—the deepest.

[6] See page 10, note 2.

[7] A very unscientific, and indeed incorrect, mode of expressing the fact, that they were in 69° 21′ N. lat., as resulting from an observation of the sun.

[8] *Opt lande van de Weygats*—on land from the Weygats. De Veer adopts the vulgar error adverted to in page 27 (note 4) of the present work, and calls the Straits of Nassau, instead of the island to the north of these straits, by the name of "Weygats".

[9] *Diversche sleden met velwerck, traen, ende dierghelijcke waer*—*several sledges* with skins, train-oil, and such like wares.

[10] *Op den Beeldthoeck*—at Image Point.

dance, whereof ten dayes after we were better informed by the Samuters[1] and the Russians, when we spake with them.

And when wee entered further[2] into the land, wee vsed all the meanes we could, to see if we could find any houses, or men, by whom wee might bee informed of the scituation of the sea[3] there abouts; whereof afterwards wee had better intelligence by the Samuters, that tolde vs, that there are certaine men dwelling on the Wey-gates,[4] and vpon Noua Zembla; but wee could neither finde men, houses, nor any other things; so that to have better information, we went with some of our men further south-east into the land, towards the sea-side;[5] and as we went, we found a path-way made with mens feete in the mosse or marsh-ground, about halfe knee deepe, for that going so deepe wee felt hard ground vnder our feete, which at the deepest was no higher than our shoes; and as wee went forward to the sea coast, wee were exceeding glad, thinking that wee had seene a passage open, where wee might get through, because we saw so little ice there: and in the euening entering into our ship againe, wee shewed them that newes. Meanetime our maister[6] had sent out a boat to see if the Tartarian Sea[7] was open, but it could not get into the sea because of the ice, yet they rowed to the Crosse-point,[8] and there let the boate lye, and went ouer the land to the

[1] *Samiuten*—Samoyedes.

[2] *Van de Weygats*—from Weygats. (Omitted.)

[3] *De gheleghenthcyt der zeecaert*—the particulars of the navigation.

[4] *Opt Waygats.* Here, however, De Veer speaks of the *Island* of Waigatsch.

[5] *Wy...verder z. o. aen trocken nae den oever van der zee*—we went further S.E. towards the sea-side. It is manifest, that while going towards the sea-side, they could not have gone further *into the land.*

[6] *Schipper*—captain or master of the vessel. Most probably William Barentsz is meant; though in page 63 Cornelis Jacobszoon is spoken of as the "schipper" of William Barentsz.

[7] The sea of Kara.

[8] *Cruijs-hoeck*; by the Russians called Sukhoi Nos.

West Point,[1] and there perceiued that the ice in the Tartarian Sea lay full vpon the Russian coastes, and in the mouth of Wey-gates.

The twentie three of August wee found a lodgie[2] or boate of Pitzore,[3] which was sowed together with bast or ropes,[4] that had beene north-ward to seeke for some sea-horses teeth, trayen,[5] and geese, which they fetcht with their boat, to lade in certaine shippes that were to come out of Russia, through Wey-gates.

Which shippes they sayd (when they spake with vs), were to saile into the Tartarian Sea, by the riuer of Oby,[6] to a place called Vgolita[7] in Tartaria, there to stay all winter, as they vsed to doe euery yeere: and told vs that it would yet bee nine or tenne weekes ere it began to freeze in that place, and that when it once began to freeze, it would freeze so hard, that as then men might goe ouer the sea into Tartaria (along vpon the ice), which they called Mermare.[8]

[1] *De Twist hoeck*—Cape Dispute; so named, because, on the first voyage of Nai and Brandt Ysbrandtsz, a dispute arose between them as to whether or not the passage extended further eastward. Through a typographical error, the Dutch text has *de tWist hoeck*, whence has arisen the *West* Point of the translator. This is the Kóninoi Nos of the Russians.

[2] See page 33, note 6.

[3] The Petchora, a considerable river, which rises in the Ural mountains, and flows into the Arctic Ocean to the S. of Novaya Zemlya.

[4] *Met bast tsamen ghenacyet*—sewed together with bast:—the inner bark of the linden or lime-tree (*Tilia*), of which is formed the Russian matting, so well known in commerce. The word *bast*, which in German and Dutch means "bark", is in English frequently pronounced, and even written *bass*.

[5] *Trayn*—train-oil.

[6] *Voorby de reviere Oby*—*beyond* the river Oby.

[7] Linschoten has "to another *river*, which they said was called *Gillissy*", meaning the large river *Yenisei*, which carries a great portion of the waters of Siberia into the Arctic Ocean.

[8] *Dattet gat soude toe vriesen, ende alst begon te vriesen soudet dan stracks toe vriesen, ende datmen dan over ys mocht loopen tot in Tartarien over de zee, die zy noemden Mermare* — ere *the passage* would be

The 24 of August in the morning betimes, we went on board of the lodgie, to haue further information and instruction of the sea on the east side of Wey-gates, and they gaue vs good instruction such as you haue heard.

The 25 of August we went againe to the lodgie, and in friendly maner spake with them, we for our parts offering them friendship; and then they gaue vs 8 fat geese,[1] that lay in the bottome of their boat: we desired that one or two of them would goe with vs on board our ship, and they willingly went with vs to the number of seuen; and being in our ship they wondered much at the greatnesse and furniture of our ship: and after they had seene and looked into it in euery place,[2] we set fish,[3] butter, and cheese before them to eat, but they refused it, saying that that day was a fasting day with them; but at last when they saw some of our pickled-herrings, they eat them, both heads, tayles, skin, and guts;[4] and hauing eaten thereof, we gaue them a small ferkin of herrings, for the which they gaue vs great thankes, knowing not what friendship they should doe vs to requite our courtesie, and we brought them with our pinnace into the Traen-Bay.

About noone wee hoysed vp our anchors with a west north-west wind; the course or stretching of Wey-gates is east to the Cruis point,[5] and then north-east to the Twist point,[6] and somewhat more easterly: From thence the land of Wey-gates reacheth north north-east, and north and by

frozen over; and that when it once began to freeze, it would speedily be frozen over, so that they could walk over the ice to Tartary (Siberia) across the sea which they called Mermare.

[1] *Die zy seer veel...hadden*—whereof they had many. (Omitted.)

[2] *Van voren tot achteren*—from stem to stern.

[3] *Vleysch*—meat.

[4] *So hebbense daer alle t'samen van ghegheten, met hooft, met staert, met al, van boven af bytende*—they one and all partook of them; and, biting from the head downwards, ate head, tail, and everything.

[5] *Cruijs hoeck*—Cross Point. See page 54, note 8.

[6] *Twisthoeck*—Cape Dispute. See note 1 in the preceding page.

east, and then north, and somewhat westerly; we sayled north-east and east-ward[1] 2 [8] miles, by the Twist point, but then we were compelled to saile backe again, because of the great store of ice, and tooke our course to our road aforesaid; and sayling backe againe wee found a good place by the Crosse point to anchor in, that night.

The 26 of August in the morning we hoysed anchor, and put out our forke-saile,[2] and so sailed to our old road, there to stay for a more conuenient time.

The 28, 29, and 30 of August till the 31, the winde for the most part was south-west, and William Barents our captaine sayled to the south side of Wey-gates, and there went on land,[3] where wee found certaine wilde men (called Samuters),[4] and yet not altogether wilde, for they being 20 in number staid and spake with our men, being but 9 together, about a mile [4 miles] within the land, our men not thinking to find any men there (for that we had at other times beene on land in the *Wey-gates, and saw none); at last, it being mistie weather, they perceiued men,[5] fiue and fiue in a company, and we were hard by them before[6] we knew it. Then our interpreter went alone towards them to speake with them; which they perceiuing sent one towardes vs, who comming almost to our men, tooke an arrow out of his quiuer, offering to shoote at him; wherewith our interpretor, being without armes, was afraide, and cryed vnto him, saying (in Russian speach), shoote not, we are friends: which the other hearing, cast his bow and arrowes to the ground, therewith giuing him to vnderstand that he was well content to speake with our man: which done, our man

[1] *N. o. wel soo oostelijk*—north-east a little easterly.

[2] *De fock*—the foresail.

[3] *Aent vaste landt*—to the main land; namely, the coast of Russia.

[4] *Saminten*—Samoyedes.

[5] *In twee hoopen*—in two bodies.

[6] Two lines of Phillip's translation, being from *, are printed twice by mistake.

called to him once againe, and sayd, we are friendes; whereunto he made answere and sayd, then you are welcome: and saluting one the other, bended both their heades downe towardes the ground, after the Russian manner. This done,[1] our interpreter questioned with him about the scituation and stretching of the sea east-ward through the straightes of Wey-gates; whereof he gaue vs good instruction, saying, that when they should haue past a poynt of land about 5 dayes sayling from thence (shewing[2] north-eastward), that after that, there is a great sea (shewing towardes the south-east vpward[3]); saying, that hee knew it very well, for that one had been there that was sent thither by their king with certaine souldiers,[4] whereof he had been captaine.

The maner of their apparell is like as we vse to paint wild men; but they are not[5] wilde, for they are of reasonable iudgement. They are apparelled in hartes[6] skins from the head to the feete, vnlesse it be the principallest of them, which are apparelled, whether they bee men or women, like vnto the rest, as aforesayd, vnlesse it bee on their heads, which they couer with certaine coloured cloth lyned with furre: the rest wear cappes of hartes or buckes skinnes, the rough side outwardes, which stand close to their heades, and are very fitte. They weare long hayre, which they plaite and fold and let it hang downe vpon their backes. They are (for the most part all) short and low of stature, with broad flat faces, small eyes, short legges, their knees standing outwards; and are very quicke to goe and leape. They trust not strangers: for although that wee shewed them all the

[1] *Dese ghelegheutheyt ghevonden* — availing himself of this opportunity.

[2] *Wysende*—pointing.

[3] *Wysende nae't z. o. op*—pointing towards the south-east.

[4] *Met een partye volcks*—with a number of persons.

[5] *Effenwel niet*—not altogether.

[6] *Rheeden*—reindeer.

courtesie and friendship that wee could, yet they trusted vs not much: which wee perceiued hereby, that as vpon the first of September we went againe on land to them, and that one of our men desired to see one of their bowes, they refused it, making a signe that they would not doe it. Hee that they called their king, had centinels standing abroad, to see what was done in the countrie, and what was bought and sould. At last, one of our men went neerer to one of the centinels, to speake with him, and offered him great friendship, according to their accustomed manner; withall giuing him a bisket, which he with great thankes tooke, and presently eate it, and while he eate it, hee still lookt diligently about him on all sides what was done.

Their sleades[1] stood alwayes ready with one or two hartes in them, that runne so swiftly with one or two men in them, that our horses were not able to follow them. One of our men shot a musket towards the sea, wherewith they were in so great feare that they ranne and leapt like mad men; yet at last they satisfied themselues when they perceiued that it was not maliciously done to hurt them: and we told them by our interpretor, that we vsed our peeces in stead of bowes, whereat they wondered, because of the great blow and noyse that it gaue and made: and to shew them what we could doe therewith, one of our men tooke a flatte stone about halfe a handfull broad, and set it vpon a hill a good way off from him: which they perceiuing, and thinking that wee meant some-what thereby, 50 or 60 of them gathered round about vs, and yet some-what farre off; wherewith hee that had the peece, shotte it off, and with the bullet smote the stone in sunder, whereat they woondred much more then before.

After that we tooke our leaues one of the other, with great friendship on both sides; and when we were in our penace,[2] we al put off our hattes and bowed our heades vnto them,

[1] Sledges. [2] Pinnace.

sounding our trumpet: they in their maner saluting vs also, and then went to their sleads againe.

And after they were gone from vs and were some-what within the land, one of them came ryding to the shore, to fetch a rough-heawed image, that our men had taken off the shore and carried into their boate: and when he was in our boate, and perceiued the image, hee made vs a signe that wee had not done well to take away that image; which wee beholding, gaue it to him again: which when he had receiued, he placed it vpon a hill right by the sea side, and tooke it not with him, but sent a slead to fetch it from thence. And as farre as wee could perceiue, they esteemed that image to be their god;[1] for that right ouer against that place in the Wey-gates, which we called Beelthooke,[2] we found certaine hundreds of such carued images, all rough, about the heads being somewhat round, and in the middle hauing a litle hill instead of a nose, and about the nose two cuttes in place of eyes, and vnder the nose a cutte in place of a mouth. Before the images, wee found great store of ashes, and bones of hartes; whereby it is to be supposed that there they offered vnto them.

Hauing left the Samuters, the sunne being south-ward,[3] William Barents, our captaine, spake to the admirall to will him to set sayle, that they might goe forward; but they had not so many wordes together, as was betweene them the day before;[4] for that when the admirall and vize-admirall had spoken with him,[5] the admirall seeming to be well contented therewith, said vnto him: Captaine,[6] what think you were best for vs to doe? he made answere, I thinke we

[1] *Sulcken beelden voor haer Goden*—such images for their gods.

[2] Image Point. See page 53.

[3] *Outrent zuyder son*—the sun being about south.

[4] From this it is manifest that a previous dispute had taken place, which is not recorded.

[5] *Hem uyt ghehoort hadden*—had heard him out.

[6] *Willem Barentsz.* Nai did not call him captain, but addressed him by his name.

should doe well to set sayle, and goe forward on our voyage, that wee may accomplish it. Whereunto the admirall answeared him, and sayd: Looke well what you doe, captaine:[1] at which time, the sunne was north-west [½ p. 7 P.M.].

The 2 of September, a litle before sunne rising, wee put foorth our anckor[2] to get out, for that the winde as then blew south south-west; it being good weather to get out, and ill weather to lie still: for we lay under a low bancke.[3] The admirall and vize-admirall seeing vs making out, began also to hoyse their anckors, and to set sayle.

When wee put out our focke-sayle,[4] the sunne was east and by south [½ p. 5 A.M.]; and then we sayled to the Crosse-poynt, and there wee cast anckor to stay for the vize-admirals pinnace; which with much labour and paines in time got out of the ice, by often casting out of their anckor,[5] and in the euening shee got to vs. In the morning, about 2 houres before sunne rising, we set sayle, and by sunne rising we got within a mile [4 miles] east-ward of the Twist-poynt,[6] and sayled north-ward 6 miles, till the sunne was south [¾ p. 10 A.M.]. Then wee were forced to wind about, because of the great quantitie of ice, and the mist that then fell; at which time the winde blew so vncertaine that we could hold no course, but were forced continually to winde and turne about,[7] by reason of the ice and the vnconstantnesse of the wind, together with the mist, so that our course was vncertaine, and we supposed that we had sailed southward vp towardes the Samuters countrey, and then held our course south-west, till the watchers[8] were north-west from

[1] *Willem Barentsz, siet wat ghy seght*—mind what you *say*.

[2] *Ons werp ancker*—our kedge-anchor.

[3] *Op een laghen wal*—on a lee shore.

[4] Fore-sail.

[5] *Met diversche reyse zijn werp-ancker uyt te brenghen*—by repeatedly carrying out their kedger (and so warping out).

[6] Cape Dispute.

[7] *Mosten stedts wenden*—were forced continually to tack.

[8] *De Wachters*. The stars β and γ of the Little Bear were called by

vs; then we came to the point of the States Island,[1] lying east-ward about a musket shot from the land, having 13 fadome deepe.

The 4 of September, we hoysed anchor because of the ice, and sailed betwene the firme land and the States Island, where wee lay close by the States Island at 4 and 5 fadome deepe, and made our shippe fast with a cable cast on the shoare; and there we were safe from the course of the ice,[2] and diuers time went on land to get[3] hares, whereof there were many in that island.

The 6 of September, some of our men went on shore vpon the firme land to seeke for stones, which are a kinde of diamont,[4] whereof there are many also in the States Island: and while they were seeking ye stones, 2 of our mē lying together in one place, a great leane white beare came sodainly stealing out, and caught one of them fast by the necke, who not knowing what it was that tooke him by the necke, cried out and said, Who is that that pulles me so by the necke?

the earlier navigators of modern times le Guardie, les Gardes, the Guards, de Wachters, die Wächter, on account of their constantly going round the Pole, and, as it were, guarding it. See Ideler, *Untersuchungen über die Sternnamen*, p. 291. These names do not, however, appear to be used by seamen at the present day.

The Amsterdam Latin version of 1598 renders the expression of the Dutch text by "Ursa minor, quam nautæ *vigiles* vocant;" but, according to Ideler (loc. cit.), the corresponding term used by writers of the middle ages, is *Circitores*, signifying, according to Du Cange, "militares, qui castra circuibant, *qui faisoient la ronde, et la sentinelle avancée*, ut vulgo loquimur".

In Il Penseroso, Milton speaks of "outwatching the Bear", evidently alluding to the never-setting of the circumpolar stars:

"Arctos oceani metuentes æquore tingi."

The time on the 3rd of September, when "the watchers were north-west", was about ½ past 10 P.M.

[1] *Staten Eylandt.* See page 37, note 4.

[2] *Den ysgangk*—the drifting of the ice.

[3] *Schieten*—to shoot.

[4] Namely, pieces of rock-crystal. See page 37.

Wherewith the other, that lay not farre from him,[1] lifted vp his head to see who it was, and perceiuing it to be a monsterous beare, cryed and sayd, Oh mate, it is a beare! and therewith presently rose vp and ran away.

The beare at the first faling vpon the man, bit his head in sunder,[2] and suckt out his blood, wherewith the rest of the men that were on land, being about 20 in number, ran presently thither, either to saue the man, or else to driue the beare from the dead body; and hauing charged their peeces and bent their pikes,[3] set vpon her, that still was deuouring the man, but perceiuing them to come towards her, fiercely and cruelly ran at them, and gat another of them out from the companie, which she tare in peeces, wherewith all the rest ran away.

We perceiuing out of our ship and pinace that our men ran to the sea-side to save themselues, with all speed entered into our boates, and rowed as fast as we could to the shoare to relieue our men. Where being on land, we beheld the cruell spectacle of our two dead men, that had beene so cruelly killed and torne in pieces by the beare. Wee seeing that, incouraged our men to goe backe againe with vs, and with peeces, curtleaxes,[4] and halfe pikes, to set vpon the beare; but they would not all agree thereunto, some of them saying, Our men are already dead, and we shall get the beare well enough, though wee oppose not our selues into so open danger; if wee might saue our fellowes liues, then we would make haste; but now wee neede not make such speede, but take her at an aduantage, with most securitie for our selues, for we haue to doe with a cruell, fierce and rauenous beast. Whereupon three of our men went forward, the beare still

[1] *Die by hem in de cuijl lach*—that lay near him in the hollow.

[2] *De beyr beet den eenen terstond thooft in stucken*—the bear instantly bit the one man's head in pieces.

[3] *Haer roers ende spietsen gevelt*—lowering their muskets and pikes.

[4] See page 26, note 2.

deuouring her prey, not once fearing the number of our men, and yet they were thirtie at the least: the three that went forward in that sort, were Cornelius Jacobson,[1] maister of William Barents shippe, William Gysen, pilote of the pinace, and Hans van Nufflen, William Barents purser:[2] and after that the sayd maister and pilote had shot three times and mist, the purser stepping somewhat further forward, and seeing the beare to be within the length of a shot, presently leauelled his peece, and discharging it at the beare, shot her into the head betweene both the eyes, and yet shee held the man still faste by the necke, and lifted vp her head, with the man in her mouth, but shee beganne somewhat to stagger; wherewith the purser and a Scotishman[3] drew out their courtlaxes, and stroke at her so hard that their courtlaxes burst,[4] and yet she would not leaue the man. At last William Geysen went to them, and with all his might stroke the beare vpon the snowt with his peece, at which time the beare fell to the ground, making a great noyse, and William Geyson leaping vpon her cut her throat. The seuenth of September wee buryed the dead bodyes of our men in the States Island, and hauing fleaed the beare, carryed her skinne to Amsterdam.

The ninth of September, wee set saile from the States Island,[5] but the ice came in so thicke and with such force, that wee could not get through; so that at euening wee came backe againe to the States Island, the winde being

[1] *Cornelis Jacobsz. de schipper van Willem Barentsz.* William Barentsz was not in the capacity merely of commander of his own vessel, but in that of pilot-major of the fleet.

[2] *Hans van Nuffelen, schryver van Willem Barentsz—i. e.*, his clerk or writer.

[3] *Een Schotsman.* From the intercourse which then existed, as now, between the opposite coasts of the German Ocean, there is nothing surprising in the fact of their having had such a person with them. The name of this individual is not recorded.

[4] *In stucken spronghen*—shivered in pieces.

[5] *By de wal henen*—along the coast. (Omitted.)

westerly. There the admirale and the pinace of Roterdam fell on ground by certaine rockes, but gote off againe without any hurt.

The tenth of September wee sayled againe from the States Island towards the Wey-gates, and sent two boates into the sea to certifie vs what store of ice was abroad; and that euening we came all together into Wey-gates, and anckored by the Twist Point.[1]

The 11 of September in the morning, we sailed againe into the Tartarian Sea,[2] but we fell into great store of ice, so that wee sailed back againe to the Wey-gates, and anckored by the Crosse Point, and about mid-night we saw a Russian lodgie,[3] that sailed from the Beeltpoint[4] towardes the Samuters land. The 13 of September, the sunne being south [$\frac{3}{4}$ p. 10 A.M.], there beganne a great storme to blow out of the south south-west,[5] the weather being mistie, melancholly,[6] and snowie,[7] and the storme increasing more and more, we draue through.[8]

The 14 of September the weather beganne to bee somewhat clearer, the winde being north-west, and the storme blowing stiffe[9] out of the Tartarian Sea; but at euening it was[10] faire weather, and then the wind blewe north-east. The same day our men went on the other side of Wey-gates on the firme land,[11] to take the depth of the channel, and entered into the bough behinde the islands,[12] where there stood a

[1] Cape Dispute. See page 55, note 1.

[2] The Sea of Kara.

[3] Boat.

[4] Image Point. See page 60.

[5] *W. z. w.*—W.S.W.

[6] *Moddich*—dirty.

[7] *Met sneejacht*—with drifting snow.

[8] *Also dat wy deur dreven*—so that we drifted before it.

[9] *Die stroom quam stijf*—the *current* ran strong.

[10] *Ende was tot den avondt*—and till the evening it was.

[11] *Aent vaste landt*—*to* the main land.

[12] *Voeren heel in de bocht achter het eylandt mette steert*—went quite into the bay behind the island with the tail. This is a small island lying in the channel, with a long sand or shallow running out behind it like a tail. To the bay behind this island the Dutch gave the name of Brandts Bay.

little howse made of wood, and a great fall of water into the land.[1] The same morning we hoysed vp our anckor,[2] thinking once againe to try what we could doe to further our voyage; but our admirall being of another minde, lay still till the fifteene of September.

The same day in the morning the winde draue in from the east end of the Wey-gates,[3] whereby wee were forced presently to hoyse anchors, and the same day sailed out from the west ende of the Wey-gates, with all our fleete, and made home-wardes againe, and that day past by the islands called Matfloe and Delgoy,[4] and that night wee sayled twelue [48] miles, north-west and by west, till Saterday in the morning, and then the winde fell north-east, and it began to snow.

The 16 of September, from morning to evening, wee sayled west north-west 18 [72] miles, at 42 fadome deepe; in the night it snowed, and there blew very much winde out of the north-east: the first quarter[5] wee had 40 fadome deepe, but in the morning we saw not any of our ships.

After that wee sailed all the night againe till the 17 of September in the morning, with two schower sailes,[6] north-west and by west and west north-west 10 [40] miles; the same day in the second quarter we had 50 fadome deepe, and in the morning 38 fadome deepe, sandy ground with blacke shels.[7]

Sunday in the morning wee had the winde north and north-west, with a great gale, and then the admirals pinnace kept vs company, and sailed by vs with one saile from morning to evening, south south-west and south-west and by south, for the space of 6 [24] miles.

[1] *Een groot afwater*—a great fall of water.

[2] *Ende de stengh om hoogh*—and set the top-mast. (Omitted.)

[3] *Quam het ys weder om het oosteijnt vande Weygats in dryven*—the *ice* came again drifting in round the east end of Weygats.

[4] See page 36, note 2.

[5] Watch.

[6] Courses.

[7] *Stippelen*—specks.

Then we saw the point of Candynaes[1] lying south-east from vs, and then wee had 27 fadome deepe, redde sand with blacke shels. Sunday at night wee put out our focke sayle,[2] and wound northward ouer, and sayled all that night till Munday in the morning, 7 [28] or 8 [32] miles north-east and north-east and by east.

The 18 of September in the morning, wee lost the sight of the pinnace that followed vs, and till noone sought after her, but wee could not finde her, and sailed[3] east-ward 3 [12] miles, and from noone till night wee sailed north and by east foure [16] miles. And from Munday at night till Tuesday in the morning, north-east and by north, seuen [28] miles; and from morning till noone, north-east and by north, 4 [16] miles; and from noone till night, north-east,[4] 5 [20] or 6 [24] miles, at 55 fadome deepe; the same euening wee woond south-ward, and sailed so till morning.

The 20 of September, wee sayled south and by west and south south-west, 7 [28] or 8 [32] miles, at 80 fadome deepe, black slimie ground; from morning till noone wee sailed with both our marsh sailes,[5] south-west and by west 5 [20] miles, and from noone to night west and by south 5 [20] miles.

The 21 of September from night[6] till Thurseday in the morning, wee sayled one quarter[7] west, and so till day, still west, 7 [28] miles, at 64 fadome deepe, oasie ground.

From morning till noone, south-west 5 [20] miles, at 65 fadome deepe, oasie ground: at noone wee wound north-ward againe, and for three houres sayled north-east two [8] myles: then we wound westward againe, and sayled till night, while halfe our second quarter was out,[8] with two schoure sayles,[9] south south-west and south-west and by south sixe [24]

[1] Kanin Nos. See page 38, note 3.
[2] *De fock*—the fore-sail.
[3] *Dreven*—drifted.
[4] *N. ten o.*—N. *by* E.
[5] *Met beyde mars-seylen*—with both *top*-sails.
[6] *Van den avont*—from evening.
[7] One watch or four hours.
[8] Till half our second watch was out; that is, till 2 A.M.
[9] Two courses. See page 7, note 4.

myles. After that, in the second quarter, wee wound northward, and sayled so till Fryday in the morning.

The 22 of September wee sayled north and by east and north north-east 4 [16] miles:[1] and from morning till noone, north-east, 4 [16] myles. Then wee wound west-ward againe, and sayled north-west and by west and north-west three [12] miles. After that, the first quarter,[2] north-west and by west, fiue [20] miles; the second quarter, west and by north, foure [16] miles; and till Saterday in the morning, being the 23 of September, west south-west and south-west and by west, foure [16] miles. From Saterday in the morning till euening wee sayled with two schoure sailes,[3] south-west and south-west and by west, 7 [28] or 8 [32] miles, the winde being north north-west. In the euening we wound northward, and sayled till Sunday in the morning, being the 24 of September, with two schoure sayles, very neare east, with a stiffe north north-west wind, 8 [32] miles; and from morning till noone, east and by south, three [12] miles, with a north winde. Then we wound west-ward, and till euening sayled west south-west three [12] miles; and all that night till Monday in the morning, the 25 of September, west and by south, sixe [24] miles, the winde being north. In the morning the wind fell north-east, and we sailed from morning till euening west and west and by north, 10 [40] miles, hauing 63 fadome deepe, sandy ground.

From euening till Tuesday in the morning, being the 26 of September, we sailed west 10 [40] miles, and then in the morning wee were hard by the land, about 3 [12] miles east-ward from Kildwin;[4] and then we wound off from the land, and so held off for 3 houres together; after that we wound towards the land againe, and thought to goe into

[1] This and the preceding sentence should properly form but one, which should read thus:—After that, in the second watch, we tacked northward, and sailed till Friday morning, the 22nd Sept., N. by E., etc.

[2] Watch. [3] Courses. [4] *Kilduin.* See page 7, note 4.

Kilduin, but we were too low;[1] so that after-noone we wound off from the land againe, and till euening sailed east north-east 5 [20] miles; and from euening til two houres before Wednesday in the morning, being the 27 of September, we sailed east 6 [24] miles; then we wound west-ward, and till euening sailed west and by north 8 [32] miles, and in the euening came againe before Kilduin; then wee wound farre off from the land, and sailed 2 quarters[2] north-east and by east and east north-east 6 [24] miles; and about[3] Friday in the morning, being the 28 of September, wee wound about againe, and sayled with diuers variable windes, sometimes one way, then another way, till euening; then wee gest[4] that Kilduin lay west from vs foure [16] miles, and at that time wee had an east north-east winde, and sayled north north-west and north-west and by north, till Satterday in the morning 12 [48] or 13 [52] miles.

The nine and twentieth of September in the morning, wee sayled north-west and by west foure [16] miles; and all that day till euening it was faire, still, pleasant, and sunne-shine weather. In the euening wee went west south-west, and then wee were about sixe [24] miles from the land, and sayled till Sunday in the morning, beeing the 30 of September, north north-west eight [32] miles; then wee wound towardes the land, and the same day in the euening entered into Ward-house,[5] and there wee stayed till the tenth of October. And that day wee set sayle out of Ward-house, and vpon the eighteene of Nouember wee arriued in the Maes.

The course or miles from Ward-house into Holland I haue not here set downe, as being needlesse, because it is a continuall uoiage knowne to most men.

[1] *Maer quamen te laech*—but fell short of it.
[2] Two watches, or eight hours.
[3] *Teyhen*—towards.
[4] Guessed.
[5] *Waerhuys*. See page 39, note 1.

THE END OF THE SECOND VOYAGE.

THE THIRD VOYAGE NORTHWARD TO THE KINGDOMES OF CATHAIA and China, in Anno 1596.

After that the seuen shippes (as I saide before) were returned backe againe from their north uoiage, with lesse benefit than was expected, the Generall States of the United Prouinces consulted together to send certaine ships thither againe a third time,[1] to see if they might bring the sayd uoyage to a good end, if it were possible to be done: but after much consultation had, they could not agree thereon; yet they were content to cause a proclamation to be made,[2] that if any, either townes or marchants, were disposed to venture to make further search that way at their owne charges, if the uoyage were accomplished, and that thereby it might bee made apparent that the sayd passage was to be sayled, they were content to give them a good reward in the countryes behalfe, naming a certaine summe[3] of money. Whereupon in the beginning of this yeare, there was two shippes rigged and set foorth by the towne of Amsterdam, to sayle that uoyage, the men therein being taken vp vpon two conditions: viz., what they should have if the uoyage were not accomplished, and what they should have if they got through and brought the uoiage to an end, promising them a good reward if they could effect it, thereby to incourage the men, taking vp as many vnmarryed men as they could, that they might not bee disswaded by means of their wiues and children, to leaue off the uoyage. Upon these

[1] *Of men noch ten derdemael van slandts wegen wederom eenige toerustinge soude doen*—whether any expedition should again for the third time be fitted out at the expense of the country.

[2] In the original no mention is made of any proclamation.

[3] *Een mercklijcke somme*—a considerable sum.

conditions, those two shippes were ready to set saile in the beginning of May. In the one, Jacob Heemskerke Hendrickson was master and factor for the wares and marchandise,[1] and William Barents chiefe pilote. In the other, John Cornelison Rijp[2] was both master and factor for the goods that the marchants had laden in her.

The 5 of May all the men in both the shippes were mustered, and vpon the tenth of May they sayled from Amsterdam, and the 13 of May got to the Vlie.[3] The sixteenth wee set saile out of the Vlie, but the tyde being all most spent[4] and the winde north-east, we were compelled to put in againe; at which time John Cornelisons ship fell on ground,[5] but got off againe, and wee anchored at the east ende of the Vlie.[6] The 18 of May wee put out of the Vlie againe with a north-east winde, and sayled north north-west. The 22 of May wee saw the islands of Hitland[7] and Feyeril-land, the winde beeing north-east. The 24 of May wee had a good winde, and sayled north-east till the 29th of May; then the winde was against vs, and blewe north-east in our top-sayle.[8] The 30 of May we had a good winde,[9] and sailed north-east, and we tooke the height of the sunne with our crosse-staffe, and found that it was eleuated aboue the horizon 47 degrees and 42 minutes,[10] his declination was

[1] *Als schipper ende comis van de comanschappe, Jacob Heemskerck Heijndricksz.*—as captain and supercargo of the merchandize.

[2] *Jan Cornelisz. Rijp.*

[3] The Vlie passage is frequented by ships bound northward which do not draw much water.

[4] *De stroom verliep*—the tide ran out.

[5] *Raeckte aen de grondt*—ran a-ground.

[6] *Aen de oost zyde vant Vlie-landt*—on the east side of Vlielandt: the island at the entrance of the Vlie, between it and Texel.

[7] *De eylanden van Hitlandt ende Feyeril.* Hitlandt is the Dutch name for the Islands of Shetland, anciently called Hialtland. Feyeril is Fair Isle, between Shetland and Orkney.

[8] *Wacyde een topseijl*—it blew a top-sail breeze.

[9] *Graedtbooghi.* See page 10, note 2.

[10] This was the sun's zenith distance, and not its elevation.

21 degrees and 42 minutes, so that the height of the Pole was 69 degrees and twentie-foure minutes.

The first of June wee had no night, and the second of June wee had the winde contrary; but vpon the fourth of June wee had a good winde out of the west north-west, and sayled north-east.

And when the sunne was about south south-east [½ p. 9 A.M.], wee saw a strange sight in the element:[1] for on each side of the sunne there was another sunne, and two raine-bowes that past cleane through the three sunnes, and then two raine-bowes more, the one compassing round about the sunnes,[2] and the other crosse through the great rundle;[3] the great rundle standing with the vttermost point[4] eleuated abone the horizon 28 degrees. At noone, the sunne being at the highest, the height thereof was measured, and wee found by the astrolabium that it was eleuated aboue the horizon 48 degrees and 43 minutes,[5] his declination was 22 degrees and 17 minutes, the which beeing added to 48 degrees 43 minutes, it was found that wee were vnder 71 degrees of the height of the Pole.

John Cornelis shippe held aloofe from vs and would not keepe with vs, but wee made towards him, and sayled north-east, bating a point of our compasse,[6] for wee thought that wee were too farre-west-ward, as after it appeared, otherwise wee should haue held our course north-east. And in the euening when wee were together,[7] wee tolde him that wee

[1] *Een wonderlijck hemel-teijcken* —a wonderful phenomenon in the heavens.

[2] *Wijdt rondtomme de sonnen*—at a distance round about the suns.

[3] *Dweers deur de groote ronde*—right through the great circle (of the former rainbow).

[4] *De onderste cant*—its lower edge.

[5] The error noticed in the preceding page (note 10) is here repeated.

[6] *Hielt de loef van ons, ende quam niet af tot ons, maer wy ghinghen hem een streeck int ghemoet*—kept to windward of us, and would not fall off towards us; but we altered our course one point to go to him.

[7] *By malcanderen quamen*—approached each other.

were best to keepe more easterly, because we were too farre west-ward; but his pilote made answere that they desired not to goe into the Straights of Weygates. There course was north-east and by north, and wee were about 60 [240] miles to sea-warde in from the land,[1] and were to sayle north-east[2] when wee had the North Cape in sight, and therefore wee should rather haue sailed east north-east and not north north-east, because wee were so farre west-ward, to put our selues in our right course againe: and there wee tolde them that wee should rather haue sayled east-ward, at the least for certaine miles, vntill wee had gotten into our right course againe, which by meanes of the contrary winde wee had lost, as also because it was north-east; but whatsoeuer wee sayde and sought to councell them for the best, they would holde no course but north north-east, for they alleaged that if wee went any more easterly that then wee should enter into the Wey-gates; but wee being not able [with many hard words][3] to perswade them, altered our course one point of the compasse, to meete them, and sayled north-east and by north, and should otherwise haue sayled north-east and somewhat[4] more east.

The fifth of June wee sawe the first ice, which wee wondered at, at the first thinking that it had been white swannes, for one of our men walking in the fore-decke,[5] on a suddaine beganne to cry out with a loud voyce, and sayd that hee sawe white swans: which wee that were vnder hatches[6] hearing, presently came vp, and perceiued that it was ice that came driuing from the great heape,[7] showing like swannes,

[1] *T'zeewaert vant landt*—out at sea away from the land.

[2] *Ende behoorden n. o. aen te gaen*—and ought to have sailed N.E.

[3] As henceforward the omissions in the translation become more numerous, it is thought better to insert the omitted passage or words in the text between brackets [ ], instead of placing them in the foot-notes

[4] *Jae noch*—yea, even.

[5] *Opt verdeck*—on deck.

[6] *Die onder waren*—who were below.

[7] *Dat van den grooten hoop quam dryven*—which came drifting from the great mass.

it being then about euening: at mid-night wee sailed through it, and the sunne was about a degree eleuated aboue the horizon in the north.

The sixth of June, about foure of the clocke in the afternoone, wee entred againe into the ice, which was so strong that wee could not passe through it, and sayled south-west and by west, till eight glasses were runne out;[1] after that wee kept on our course north north-east, and sayled along by the ice.

The seuenth of June wee tooke the height of the sunne, and found that it was eleuated aboue the horizon thirtie eight degrees and thirtie eight minutes, his declination beeing twentie two degrees thirtie eight minutes; which beeing taken from thirtie eight degrees thirty eight minutes, wee found the Pole to bee seuentie foure degrees: there wee found so great a store of ice, that it was admirable: and wee sayled along through it, as if wee had past betweene two lands, the water being as greene as grasse; and wee supposed that we were not farre from Greene-land, and the longer wee sayled the more and thicker ice we found.

The eight of June wee came to so great a heape of ice, that wee could not saile through it, because it was so thicke, and therefore wee wound about south-west and by west till two glasses were runne out,[2] and after that three glasses[3] more south south-west, and then south three glasses, to sayle to the island that wee saw, as also to shunne the ice.

The ninth of June wee found the islande, that lay vnder 74 degrees and 30 minutes,[4] and (as wee gest) it was about fiue [20] miles long.[5]

[1] During four hours.

[2] One hour.

[3] One hour and a half.

[4] The accuracy of William Barentszoon's observations is worthy of remark. According to the observations of Fabure in the "Recherche", the west point of Bear Island is in 74° 30′ 52″ N. lat., being virtually the same as Barentsz., with his rude instruments, had made it two centuries and a half previously. The longitude of the same point is 16° 19′ 10″ east of Paris, or 18° 39′ 32″ E. of Greenwich.

[5] 5 *mylen groot*—twenty English miles in circumference.

The tenth of June wee put out our boate, and therewith eight of our men went on land; and as wee past by John Cornelisons shippe, eight of his men also came into our boate, whereof one was the pilote. Then William Barents [our pilot] asked him whether wee were not too much west-ward, but hee would not acknowledge it: whereupon there passed many wordes betweene them, for William Barents sayde hee would prooue it to bee so, as in trueth it was.

The eleuenth of June, going on land, wee found great store of sea-mewes egges vpon the shoare, and in that island wee were in great danger of our liues: for that going vp a great hill of snowe,[1] when we should come down againe, wee thought wee should all haue broken our neckes, it was so slipperie[2] but we sate vpon the snowe[3] and slidde downe, which was very dangerous for vs to breake both our armes and legges, for that at the foote of the hill there was many rockes, which wee were likely to haue fallen vpon, yet by Gods help wee got safely downe againe.

Meane time William Barents sate in the boate, and sawe vs slide downe, and was in greater feare then wee to behold vs in that danger. In the sayd island we found the varying of our compasse, which was 13 degrees, so that it differed a whole point at the least; after that wee rowed aboard John Cornelisons shippe, and there wee eate our eggs.

The 12 of June in the morning, wee saw a white beare, which wee rowed after with our boate, thinking to cast a roape about her necke; but when we were neere her, shee

[1] *Een steylen sneebergh*—a steep mountain of snow. This was not a *glacier*, but merely an accumulation of snow. The land of Bear Island appears to be not sufficiently elevated for the formation of glaciers. See Von Buch's Memoir "über Spirifer Keilhavii", in *Abhandl. d. K. Acad. d. Wissensch. zu Berlin*, 1846, p. 69; and its transl., in *Journ. Geol. Soc. Lond.*, vol. iii, part ii, p. 51.

[2] *Steijl*—steep.

[3] *Wy ghinghen op ons naers sitten.*

was so great[1] that we durst not doe it, but rowed backe again to our shippe to fetch more men and our armes, and so made to her againe with muskets, hargubushes, halbertes, and hatchets, John Cornellysons men comming also with their boate[2] to helpe vs. And so beeing well furnished of men and weapons, wee rowed with both our boates vnto the beare, and fought with her while foure glasses were runne out,[3] for our weapons could doe her litle hurt; and amongst the rest of the blowes that wee gaue her, one of our men stroke her into the backe with an axe, which stucke fast in her backe, and yet she swomme away with it; but wee rowed after her, and at last wee cut her head in sunder with an axe, wherewith she dyed; and then we brought her into John Cornelysons shippe, where wee fleaed her, and found her skinne to bee twelue foote long: which done, wee eate some of her flesh; but wee brookt it not well.[4] This island wee called the Beare Island.[5]

The 13 of June we left the island, and sayled north and somewhat easterly, the winde being west and south-west, and made good way; so that when the sunne was north [¼ p. 11 P.M.], we gest that wee had sayled 16 [64] miles north-ward from that island.

The 14 of June, when the sunne was north, wee cast out our lead 113 fadome deepe, but found no ground, and so sayled forward till the 15 of June, when the sunne was south-east [½ p. 8 A.M.], with mistie and drisling[6] weather, and sayled north and north and by east; about euening it

[1] *Geweldich*—powerful. [2] *Bock*—yawl. [3] Two hours.

[4] *Maer ten bequam ons niet wel*—but it did not agree with us.

[5] *Het Beyren Eylandt.* The Russian walrus-hunters call this island simply *Medvyed*, "the Bear". By the English it has been usually called Cherry Island. This name was given to it in 1604 by Stephen Bennet, who went thither in a ship belonging to Sir Francis Cherry, a rich merchant of London, to kill walruses for their oil, and who named the island after his patron.

[6] *Hyselachtich*—hazy.

cleared up, and then wee saw a great thing driuing[1] in the sea, which we thought had been a shippe, but passing along by it wee perceiued it to be a dead whale, that stouncke monsterously; and on it there sate a great number of sea meawes. At that time we had sayled 20 [80] miles.

The 16 of June, with the like speed wee sayled north and by east, with mistie weather; and as wee sayled, wee heard the ice before wee saw it; but after, when it cleared vp, wee saw it, and then wound off from it, when as wee guest wee had sayled 30 [120] miles.

The 17 and 18 of June, wee saw great store of ice, and sayled along by it vntill wee came to the poynt, which wee could not reach,[2] for that the winde was south-east, which was right against vs, and the point of ice lay south-ward from vs: yet we laueared[3] a great while to get beyond it, but we could not do it.

The 19 of June we saw land againe. Then wee tooke the height of the sunne, and found that it was eleuated aboue the horizon 33 degrees and 37 minutes, her declination being 23 degrees and 26 minutes; which taken from the sayd 33 degrees and 37 minutes, we found that we were vnder 80 degrees and 11 minutes, which was the height of the Pole there.[4]

[1] Floating.

[2] *Daer wy niet boven conden comen*—which we could not weather.

[3] See page 25, note 2.

[4] There is an error in the calculation here, which may be best explained by repeating the calculation itself, as it was doubtless made:—

33° 37′	Elevation of the sun.
23° 26′	Declination of the sun.
10° 11′	Elevation of the equator, which being the complement of the elevation of the Pole, had to be deducted from 90°.
90° 0′	
80° 11′	

But in making the deduction, the 11′ were carried down instead of being subtracted from 60′; and then, of course, 90°—10°=80°. The true difference is 79° 49′, which is, consequently, the latitude observed.

This land was very great,[1] and we sayled west-ward along by it till wee were vnder 79 degrees and a halfe, where we found a good road, and could not get neere to the land because the winde blew north-east, which was right off from the land: the bay reacht right north and south into the sea.

The 21 of June we cast out our anchor at 18 fadome before the land; and then wee and John Cornelysons men rode on the west side of the land, and there fetcht balast: and when wee got on board againe with our balast, wee saw a white beare that swamme towardes our shippe; wherevpon we left off our worke, and entering into the boate with John Cornelisons men, rowed after her, and crossing her in the way, droue her from the land; where-with shee swamme further into the sea, and wee followed her; and for that our boate[2] could not make way after her, we manned out our scute[3] also, the better to follow her: but she swamme a mile [4 miles] into the sea; yet wee followed her with the most part of all our men of both shippes in three boates, and stroke often times at her, cutting and heawing her, so that all our armes were most broken in peeces. During our fight with her, shee stroke her clowes[4] so hard in our boate, that the signes thereof were seene in it; but as hap was, it was in the forehead of our boate:[5] for if it had been in the middle thereof, she had (peraduenture) ouer-throwne it, they haue such force in their clawes. At last, after we had fought long with her, and made her wearie with our three boates that kept about her, we ouercame her and killed

[1] The country thus visited for the first time was supposed by its discoverers to be a part of Greenland; but it is now known to be Spitzbergen.

[2] *Bock*. It is impossible to say what is the correct English name for this smaller boat: probably "yawl". *Bock* (or *pont*) is properly a "punt", which is clearly not intended.

[3] *Schuijt*. This being the generic term for small craft, might well be translated "boat".

[4] Claws.

[5] *Voor aen den steven*—forward in the stem (of the boat).

her: which done, we brought her into our shippe and fleaed her, her skinne being 13 foote long.

After that, we rowed with our scute about a mile [4 miles] inward to the land,[1] where there was a good hauen and good anchor ground, on the east-side being sandie: there wee cast out our leade, and found 16 fadome deepe, and after that 10 and 12 fadom; and rowing further, we found that on the east-side there was two islands that reached east-ward into the sea: on the west-side also there was a great creeke or riuer, which shewed also like an island. Then we rowed to the island that lay in the middle, and there we found many red geese-egges,[2] which we saw sitting vpon their nests, and draue them from them, and they flying away cryed red, red, red:[3] and as they sate we killed one goose dead with a stone, which we drest and eate, and at least 60 egges, that we tooke with vs aboard the shippe; and vpon the 22 of June wee went aboard our shippe againe.

Those geese were of a perfit red coulor,[4] such as come into Holland about Weiringen,[5] and euery yeere are there taken

[1] *Te landtwaert in*—towards the land.

[2] *Rotgansen*—brent geese or "barnacle" geese, as they were called, owing to the absurd idea which formerly prevailed as to their origin.

[3] *Rot, rot, rot.* It is certainly singular that the translator should have attempted to render into English what is intended to represent the natural cry of these birds. But even in this strange attempt he made a mistake; for "red" is in Dutch *rood*, while *rot* means a *rout*, crowd, flock, rabble; so that, in the opinion of some, these geese are called *rotgansen* in Dutch, on account of their flocking together.

[4] *Dit waren oprechte rotgansen*—these were true brent geese. Apart from Phillip's very curious "translation", it is difficult to imagine how he could have supposed these geese to be of "a perfit *red* coulor". And it is scarcely less incomprehensible how Barrow, in his *Chronological History, etc.*, p. 147, should have reproduced this and other errors of Phillip without the slightest comment. By a contemporary writer, in the passage cited in the next page, the brent goose is well described as "a fowle bigger than a mallard, and lesser than a goose, having blacke legs and bill or beake, and feathers blacke and white, spotted in such manner as is our mag-pie". It is figured and also described in the fifth volume of Gould's *Birds of Europe*.

[5] *Wieringen*, an island of North Holland, near the Texel.

Red geese breed their yong geese under 80 degrees in Green-land.

in abundance, but till this time it was neuer knowne where they [laid and] hatcht their egges; so that some men haue taken vpon them to write that they sit vpon trees[1] in Scotland, that hang ouer the water, and such egges as fall from them downe into the water[2] become yong geese and swimme there out of the water;[3] but those that fall vpon the land burst in sunnder and are lost:[4] but this is now found to be

[1] *Aen boomen wassen*—*grow* upon trees.

[2] *Ende de tacken die overt water hangen ende haer vruchten int water vallen*—and those branches which hang over the water, and the fruit of which falls into the water.

[3] *Swemmen daer hennen*—swim away.

[4] *Comen te niet*—come to nothing. This extraordinary fable concerning the origin of these geese, which was prevalent in the sixteenth century, and was credited by the best informed naturalists and most learned scholars, is, at the present day, retained in our memory principally by Izaak Walton's quotation from *Divine Weekes and Workes* of Du Bartas:—

> "So, slowe Boötes vnderneath him sees,
> In th' yey iles, those goslings hatcht of trees;
> Whose fruitfull leaues, falling into the water,
> Are turn'd (they say) to liuing fowls soon after.
> So, rotten sides of broken ships do change
> To barnacles; O transformation strange!
> 'Twas first a greene tree, then a gallant hull,
> Lately a mushrom, now a flying gull."

For the reason which will appear in the sequel, it is deemed advisable to reproduce here the elaborate description of "the goose tree, barnacle tree, or the tree bearing geese", given by the learned John Gerard, in his *Herball or Generall Historie of Plantes*, of which the first edition was published in 1597:—

"There are found in the north parts of Scotland and the islands adiacent, called Orchades, certain trees, whereon do grow certaine shells of a white colour tending to russet, wherein are contained little liuing creatures: which shells in time of maturitie do open, and out of them grow those little liuing things, which falling into the water do become fowles, which we call barnakles; in the north of England, brant geese; and in Lancashire, tree geese: but the other that do fall vpon the land perish and come to nothing. Thus much by the writings of others, and also from the mouths of people of those parts, which may very well accord with truth.

"But what our eyes haue seene, and hands haue touched, we shall

contrary, and it is not to bee wondered at that no man could tell where they breed[1] their egges, for that no man that euer we knew had euer beene vnder 80 degrees, nor that land vnder 80 degrees was neuer set downe in any card,[2] much lesse the red geese that breed therein.

[1] *Liggen*—lay.

[2] Chart. The original has, however, nothing about any "card", but says *noch noyt dat land op die plaets bekent is geweest*—nor was that land ever known on the spot (that is to say, from personal observation).

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declare. There is a small island in Lancashire called the Pile of Foulders, wherein are found the broken pieces of old and bruised ships, some whereof haue been cast thither by shipwracke, and also the trunks and bodies with the branches of old and rotten trees, cast vp there likewise; whereon is found a certaine spume or froth that in time breedeth vnto certaine shels, in shape like those of the muskle, but sharper pointed, and of a whitish colour; wherein is contained a thing in forme like a lace of silke finely wouen as it were together, of a whitish colour, one end whereof is fastned vnto the inside of the shell, euen as the fish of oisters and muskles are; the other end is made fast vnto the belly of a rude masse or lumpe, which in time commeth to the shape and forme of a bird: when it is perfectly formed the shell gapeth open, and the first thing that appeareth is the foresaid lace or string; next come the legs of the bird hanging out, and as it groweth greater it openeth the shell by degrees, til at length it is all come forth, and hangeth onely by the bill; in short space after it commeth to full maturitie, and falleth into the sea, where it gathereth feathers, and groweth to a fowle bigger than a mallard, and lesser than a goose, hauing blacke legs and bill or beake, and feathers blacke and white, spotted in such manner as is our mag-pie, called in some places a pie-annet, which the people of Lancashire call by no other name than a tree-goose: which place aforesaid, and all those parts adioyning, do so much abound therewith, that one of the best is bought for three pence. For the truth hereof, if any doubt, may it please them to repaire vnto me, and I shall satisfie them by the testimonie of good witnesses.

"Moreouer, it should seeme that there is another sort hereof; the historie of which is true, and of mine owne knowledge: for trauelling vpon the shore of our English coast betweene Douer and Rumney, I found the trunke of an old rotten tree, which (with some helpe that I procured by fishermens wines that were there attending their husbands returne from the sea) we drew out of the water vpon dry land: vpon this rotten tree I found growing many thousands of long crimson bladders, in shape like vnto puddings newly filled, before they be sodden, which were

Note. It is here also to be noted, that although that in this land, which we esteeme to be Greene-land, lying vnder 80 de-

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very cleere and shining: at the nether end whereof did grow a shell fish, fashioned somewhat like a small muskle, but much whiter, resembling a shell fish that groweth vpon the rocks about Garnsey and Garsey, called a lympit: many of these shells I brought with me to London, which after I had opened I found in them liuing things without forme or shape; in others which were neerer come to ripenes I found liuing things that were very naked, in shape like a bird: in others, the birds couered with soft downe, the shell halfe open, and the bird ready to fall out, which no doubt were the fowles called barnakles. I dare not absolutely auouch euery circumstance of the first part of this history, concerning the tree that beareth those buds aforesaid, but will leaue it to a further consideration; howbeit that which I haue seene with mine eyes, and handled with mine hands, I dare confidently auouch, and boldly put downe for veritie. Now if any will obiect, that this tree which I saw might be one of those before mentioned, which either by the waues of the sea or some violent wind had been ouerturned, as many other trees are; or that any trees falling into those seas about the Orchades, will of themselves beare the like fowles, by reason of those seas and waters, these being so probable coniectures, and likely to be true, I may not without preiudice gainesay, or indeauor to confute."—(2nd edit.) p. 1588.

Difficult as it is to understand how a man of Gerard's genius and information could have been thus deceived, the perfect sincerity of his belief is not to be doubted. Seeing, then, how deep rooted this popular error must have been, it was no small merit of William Barentz and his companions that they should have been mainly instrumental in disabusing the public mind on the subject. That they were so, and that at the time they enjoyed the credit of being so, is manifest from the following note on the foregoing passage, made by Thomas Johnson, the editor of the second edition of the *Herball*, published in 1633:—

"The barnakles, whose fabulous breed my author here sets downe, and diuers others haue also deliuered, were found by some Hollanders to haue another originall, and that by egges, as other birds haue: for they in their third voyage to find out the north-east passage to China and the Molucco's, about the eightieth degree and eleuen minutes of northerly latitude, found two little islands, in the one of which they found abundance of these geese sitting vpon their egges, of which they got one goose, and tooke away sixty egges, etc. *Vide Pontani, Rerum et vrb. Amstelodam. Hist., lib.* 2, *cap.* 22."

Parkinson, too, in his *Theatrum Botanicum*, published in 1640 (p. 1306), gives our Dutch navigators full credit for having confuted "this admirable tale of untruth".

grees and more, there groweth leaues and grasse, and that there are such beasts therein as eat grasse, as harts, buckes, and such like beastes as liue thereon; yet in Noua Zembla, under 76 degrees, there groweth neither leaues nor grasse, nor any beasts that eate grasse or leaues liue therein,[1] but such beastes as eate flesh, as beares and foxes: and yet this land lyeth full 4 degrees [further] from the North Pole as Greeneland aforesaid doth.

The 23 of June we hoysted anchor againe, and sayled north-west-ward into the sea, but could get no further by reason of the ice; and so wee came to the same place againe where wee had laine, and cast anchor at 18 fadome: and at euening[2] being at anchor, the sunne being north-east and somewhat more east-warde, wee tooke the height thereof, and found it to be eleuated above the horizon 13 degrees and 10 minutes, his declination being 23 degrees and 28 minutes; which substracted from the height aforesaid,[3] resteth 10 degrees and 18 minutes, which being substracted from 90 degrees, then the height of the Pole, there was 79 degrees and 42 minutes.

After that, we hoysted anchor againe, and sayled along by the west side of the land,[4] and then our men went on land, to see how much the needle of the compasse varyed. Mean time, there came a greate white beare swimming towardes the shippe, and would haue climbed up into it if we had not made a noyse, and with that we shot at her with

[1] This remark, which has previously been made by the author in page 5, is not founded on fact, inasmuch as reindeer do exist in Novaya Zemlya, as is there shown in note 2. In addition to the authorities cited in that place, may be given that of Rosmuislov, who passed the winter of 1768-9 to the northward of 73° N. lat., and saw there large herds of wild reindeer.—*Lütke*, p. 77.

[2] *Des nachts*—at night.

[3] *De selfde getogen van de genomen hooghde.* This is erroneous. It should be "*from which* subtracted the height aforesaid".

[4] *By de westval heenen*—along the west wall, *i.e.*, the western shore.

a peece, but she left the shippe and swam to the land, where our men were: which wee perceiuing, sayled with our shippe towardes the land, and gaue a great shoute; wherewith our men thought that wee had fallen on a rocke with our shippe, which made them much abashed; and therewith the beare also being afraide, swam off againe from the land and left our men, which made vs gladde: for our men had no weapons about them.

Touching the varying of the compasse, for the which cause our men went on land to try the certaintie thereof, it was found to differ 16 degrees.

The 24 of June we had a south-west winde, and could not get aboue the island,[1] and therefore wee sayled backe againe, and found a hauen that lay foure [16] miles from the other hauen, on the west side of the great hauen, and there cast anchor at twelue fadome deepe. There wee rowed a great way in, and went on land; and there wee founde two sea-horses teeth that waighed sixe pound: wee also found many small teeth, and so rowed on board againe.

The 25 of June we hoysted anchor againe, and sayled along by the land, and went south and south south-west, with a north north-east winde, vnder 79 degrees. There we found a great creeke or riuer,[2] whereinto we sailed ten [40] miles at the least, holding our course south-ward; but we perceiued that there wee could not get through: there wee cast out our leade, and for the most part found ten fadome deepe, but wee were constrained to lauere[3] out againe, for the winde was northerly, and almost full north;[4] and wee perceaued that it reached to the firm land, which we supposed to be low-land, for that wee could not see it any thing farre, and therefore wee sailed so neere vnto it till that wee might see

[1] *Boven dat eylandt niet comen*—could not weather that island.

[2] *Een gheweldigen inham*—an extremely large bay or inlet.

[3] *Laveren.* See page 25, note 2.

[4] *Ende moesten n. aen*—and *we had to go* north.

it, and then we were forced to lauere [back], and vpon the 27 of June we got out againe.

The twenty eight of June wee gate beyonde the point that lay on the west-side, where there was so great a number of birds that they flew against our sailes, and we sailed 10 [40] miles south-ward, and after that west, to shun the ice.

The twenty nine of June wee sayled south-east, and somewhat more easterly, along by the land, till wee were vnder 76 degrees and 50 minutes, for wee were forced to put off from the land, because of the ice.

The thirteeth of June we sayled south and somewhat east, and then we tooke the height of the sun, and found that it was eleuated aboue the horizon 38 degrees and 20 minutes, his declination was 23 degrees and 20 minutes, which being taken from the former height, it was found that wee were vnder 75 degrees.[1]

The first of July wee saw the Beare-Island[2] againe, and then John Cornelison and his officers came aboard of our ship, to speak with vs about altering of our course; but wee being of a contrary opinion, it was agreed that wee should follow on our course and hee his: which was, that hee (according to his desire) should saile vnto 80 degrees againe; for hee was of opinion that there hee should finde a passage through, on the east-side of the land that lay vnder 80 degrees.[3] And vpon that agreement wee left each other, they sayling north-ward, and wee south-ward because of the ice, the winde being east south-east.

The second of July wee sailed east-ward, and were vnder 74 degrees, hauing the wind north north-west, and then wee wound ouer another bough[4] with an east north-east winde, and

[1] That is to say, the sun's declination 23° 20′, being taken from his elevation 38° 20′, leaves 15°, the complement of the elevation of the Pole, which latter is consequently 75°.

[2] See page 76.

[3] Namely, Spitzbergen, which they had just left.

[4] *Wendent over den anderen boech*—went upon the other tack.

sayled north-ward. In the euening, the sunne beeing about north-west and by north [9 P.M.], wee wound about againe (because of the ice) with an east winde, and sailed south south-east; and about east south-east sun[1] [¼ p. 7 A.M.] we wound about againe (because of the ice), and the sunne being south south-west [½ p. 12 P.M.] we wound about againe, and sailed north-east.

The third of July wee were vnder 74 degrees, hauing a south-east and by east wind, and sailed north-east and by north: after that we wound about againe with a south wind and sayled east south-east till the sunne was north-west [¼ p. 8 P.M.], then the wind began to be somewhat larger.[2]

The fourth of July wee sailed east and by north, and found no ice, which wee wondered at, because wee sailed so high;[3] but when the sunne was almost south, we were forced to winde about againe by reason of the ice, and sailed westward with a north-wind; after that, the sunne being north [11 P.M.], wee sailed east south-east with a north-east wind.

The fifth of July wee sailed north north-east till the sunne was south [11 A.M.]: then wee wound about, and went east south-east with a north-east winde. Then wee tooke the height of the sunne, and found it to bee eleuated aboue the horizon 39 degrees and 27 minutes, his declination being 22 degrees and 53 minutes, which taken from the high aforesaid, we found that wee were under the height of the Poole seuentie three degrees and 20 minutes.[4]

The seuenth of July wee cast out our whole lead-lyne, but found no ground, and sailed east and by south, the wind being

[1] In Phillips' translation, "sun" is omitted, and the words "and then" substituted, whereby the sense is completely altered.

[2] *Wat te ruymen*—to be somewhat more favourable.

[3] That is, to so high a latitude.

[4] 73 *graden ende* 20 *minuten*. This is an error of the press. It should be 73° 26′.

north-east and by east, and were vnder 72 degrees and 12 minutes.

The eight of July we had a good north [by] west wind, and sailed east and by north, with an indifferent cold gale of wind,[1] and got vnder 72 degrees and 15 minutes. The ninth of July we went east and by north, the wind being west. The tenth of July, the sunne being south south-west [9 A.M.], we cast out our lead and had ground at 160 fadome, the winde being north-east and by north, and we sailed east and by south vnder 72 degrees.

The 11 of July we found 70 fadome deepe, and saw no ice; then we gest that we were right south and north from Dandinaes,[2] that is the east point of the White-Sea, that lay southward from vs, and had sandy ground, and the bancke stretched north-ward into the sea, so that wee were out of doubt that we were vpon the bancke of the White Sea, for wee had found no sandy ground all the coast along, but onely that bancke. Then the winde being east and by south, we sayled south and south and by east, vnder 72 degrees, and after that we had a south south-east winde, and sayled north-east to get ouer the bancke.

In the morning wee draue forward with a calme,[3] and found that we were vnder 72 degrees, and then againe wee had an east south-east winde, the sunne being about south-west [2 P.M.], and sayled north-east; and casting out our lead found 150 fadome deepe, clay ground, and then we were ouer the bancke, which was very narrow, for wee sailed but 14 glasses,[4] and gate ouer it when the sunne was about north north-east [¼ p. 12 A.M.].

The twelfth of July wee sayled north and by east, the

[1] *Een tamelijcken coelte*—a tolerable breeze.

[2] *Dandinaes:* evidently a misprint for Candinaes, or Kanin Nos; respecting which, see page 38, note 3.

[3] *Dreven wy in stilte*—we drifted in a calm.

[4] Seven hours.

winde being east; and at euening,[1] the sunne being north north-east, we wound about againe, hauing the winde north north-east, and sayled east and by south till our first quarter[2] was out.

The thirteenth of July wee sayled east, with a north north-east wind: then we tooke the height of the sunne and found it to bee elevated aboue the horizon 54 degrees and 38 minutes,[3] his declination was 21 degrees and 54 minutes, which taken from the height aforesaid, the height of the Pole was found to be 73 degrees; and then againe wee found ice, but not very much, and wee were of opinion that wee were by Willoughbies-land.[4]

The fourteenth of July wee sailed north-east, the winde being north north-west, and in that sort sayled about a dinner time[5] along through the ice, and in the middle thereof wee cast out our leade, and had 90 fadome deepe; in the next quarter wee cast out the lead againe and had 100 fadome deepe, and we sayled so farre into the ice that wee could goe no further: for we could see no place where it

[1] *Des nachts*—at night. [2] Watch.

[3] 54 *graden ende* 38 *minuten*. This is a misprint. It should be "38 degrees and 54 minutes", from which deducting 21° 54′, the sun's declination, there remains 27°, the complement of the height of the Pole; so that the latitude is 73°.

[4] *Willebuijs landt*. On the 14th of August, 1553, the unfortunate Sir Hugh Willoughby discovered land in 72° N. lat., 160 leagues E. by N. from Seynam on the coast of Norway. In consequence of this discovery, some of the old charts showed in this direction a separate coast line, to which they gave the name of Willoughby's Land. It is to this that De Veer alludes. It is, however, now fully established that no such land exists; and there is every reason for the opinion that the coast seen by Willoughby was that of Novaya Zemlya itself. This opinion is entertained by Lütke, as well as by most geographers at the present day. See Mr. Rundall's *Narratives of Voyages towards the North-West*, Introd., p. v.

[5] *Een eetmael langh*—during four and twenty hours. The English translator must be excused for not understanding this expression, when even the Amsterdam Latin version of 1598 has *durante prandio*. Whatever may be the derivation of the expression, there can be no doubt as to its real meaning.

opened, but were forced (with great labour and paine) to lauere out of it againe, the winde blowing west, and wee were then vnder seuentie foure degrees and tenne minutes.

The fifteenth of July wee draue through the middle of the ice with a calme,[1] and casting out our leade had 100 fadome deepe, at which time the winde being east, wee sayled [south-] west.

The sixteenth of July wee got out of the ice, and sawe a great beare lying vpon it, that leaped into the water when shee saw vs. Wee made towards her with our shippe; which shee perceiuing, gotte vp vpon the ice againe, wherewith wee shot once at her.

Then we sailed east south-east and saw no ice, gessing that wee were not farre from Noua Zembla, because wee sawe the beare there vpon the ice, at which time we cast out the lead and found 100 fadome deepe.

The seuenteenth of July we tooke the height of the sunne, and it was eleuated aboue the horizon 37 degrees and 55 minutes; his declination was 21 degrees and 15 minutes, which taken from the height aforesaid, the height of the Pole was 74 degrees and 40 minutes:[2] and when the sunne was in the south [11 A.M.], wee saw the land of Noua Zembla, which was about Lomsbay.[3] I was the first that espied

[1] *Dreven wy in stilte midden int ys*—we drifted in a calm, surrounded by the ice.

[2] Here, again, the same error is committed as on the 19th of June (see page 77, note 4). The calculation is as follows:—

37° 55′	Elevation of the sun.
21° 15′	Declination of the sun.
16° 40′	Complem. of elev. of Pole.
90° 0′	
74° 40′	Elevation of the Pole.
But which should be 73° 20′	

[3] In this they were mistaken, owing to their error in the calculation of their observed latitude, as is shown in the preceding note. On their

it. Then wee altered our course, and sayled north-east and by north, and hoysed vp all our sailes except the fore-saile and the lesien.[1]

The eighteenth of July wee saw the land againe, beeing vnder 75 degrees, and sayled north-east and by north with a north-west winde, and wee gate aboue the point of the Admirals Island,[2] and sayled east north-east with a west winde, the land reaching north-east and by north.

The nineteenth of July wee came to the Crosse-Island,[3] and could then get no further by reason of the ice, for there the ice lay still close vpon the land, at which time the winde was west and blewe right vpon the land, and it lay vnder 76 degrees and 20 minutes. There stood 2 crosses vpon the land, whereof it had the name.

The twenteeth of July wee anchored vnder the island, for wee could get no further for the ice. There wee put out our boate, and with eight men rowed on land, and went to one of the crosses, where we rested vs awhile, to goe to the next crosse, but beeing in the way we saw two beares by the other crosse, at which time wee had no weapons at all about vs. The beares rose vp vpon their hinder feete to see vs (for they smell further than they see), and for that they smelt us, therefore they rose vpright and came towards vs, wherewith we were not a little abashed, in such sort that wee had little lust[4] to laugh, and in all haste went to our boate againe, still looking behinde vs to see if they followed vs, thinking to get into the boate and so put off from the

former visit to Lomsbay (see page 13) they made its latitude to be 74° 20′; so that now, instead of being near that spot, they must have been about a degree to the south of it. This corresponds, too, better with their observation on the following day; for it is not to be imagined that they should have been 24 hours under full-sail, and yet have made only 20 miles of northing on a N.E. by N. course.

[1] *Het voormarsseijl ende besaen*—the fore-topsail and spanker.

[2] *Het Admiraliteijts Eylandt*—Admiralty Island. See page 13.

[3] The "Island with the Crosses" of page 16.

[4] Desire.

land: but the master[1] stayed us, saying, hee that first beginnes to runne away, I will thrust this hake-staffe[2] (which hee then held in his hand) into his ribs,[3] for it is better for vs (sayd hee) to stay altogether, and see if we can make them afraid with whooping and hallowing; and so we went softly towards the boate, and gote away glad that wee had escaped their clawes, and that wee had the leysure to tell our fellowes thereof.

The one and twenteeth of July wee tooke the height of the sunne, and found that it was eleuated aboue the horizon thirtie fiue degrees and fifteene minutes; his declination was one and twentie degrees, which being taken from the height aforesaide, there rested fourteene degrees, which substracted from ninetie degrees, then the height of the Pole was found to be seuentie sixe degrees and fifteene minutes:[4] then wee found the variation of the compasse to be iust twentie sixe degrees. The same daye two of our men went againe to the crosse, and found no beares to trouble vs, and wee followed them with our armes, fearing lest wee might meet any by chance; and when we came to the second crosse, wee found the foote-steps of 2 beares, and saw how long they had followed vs, which was an hundreth foote-steps at the least, that way that wee had beene the day before.

The two and twentie of July, being Monday, wee set vp another crosse and made our marke [s] thereon, and lay there before the Cross Island till the fourth of August; meane time we washt and whited[5] our linnen on the shoare.

The thirtie of July, the sunne being north [½ p. 10 P.M.],

[1] *De schipper.*

[2] *Bootshaeck*—boat-hook.

[3] *Huijt*—body (literally "hide").

[4] Here are *two* errors. In the first place, the difference between the sun's elevation and declination is not 14°, but 14° 15′. This is, manifestly, an error of the press. Then, in the same way as on the 19th of June and 17th of July (see pages 77 and 89), 90°—14° 15′ is made to be 76° 15′, whereas it should be 75° 45′, which is the true latitude.

[5] *Bleeckten*—bleached.

there came a beare so neere to our shippe that wee might hit her with a stone, and wee shot her into the foote with a peece, wherewith shee ranne halting away.

The one and thirteeth of July, the sunne being east north-east [¾ p. 2 A.M.], seuen of our men killed a beare, and fleaed her, and cast her body into the sea. The same day at noone (by our instrument) wee found the variation of the nedle of the compasse to be 17 degrees.[1]

The first of August wee saw a white beare, but shee ranne away from vs.

The fourth of August wee got out of the ice to the other side of the island, and anchored there: where, with great labour and much paine, wee fetched a boate full of stones from the land.

The fifth of August wee set saile againe towardes Ice-point[2] with an east wind, and sailed south south-east, and then north north-east, and saw no ice by the land, by the which wee lauered.[3]

The sixth of August we gate about the point of Nassawe,[4] and sayled forward east and east and by south, along by the land.

The seuenth of August wee had a west south-west wind, and sayled along by the land, south-east and south-east and by east, and saw but a little ice, and then past by the Trust-point,[5] which wee had much longed for. At euening we had an east wind, with mistie weather, so that wee were forced to make our ship fast to a peece of ice, that was at least 36 fadome deep vnder the water, and more than 16 fadome

[1] This would seem to be a misprint for 27°, as all the other observations made in Novaya Zemlya tend to show that at that time the variation was from 2 to 2½ points. The subject is discussed in the Introduction.

[2] The northernmost point of Novaya Zemlya. See page 24.

[3] *Daer we langhs heenen lareerden*—along which we tacked.

[4] *Quamen wy boren de hoeck van Nassouwen* — we weathered Cape Nassau. See page 16.

[5] *De hoeck van Troost*—Cape Comfort. See page 22, note 4.

aboue the water; which in all was 52 fadome thick, for it lay fast vpon ground the which was 36 fadome deepe. The eight of August in the morning wee had an east wind with mistie weather.

The 9 of August, lying still fast to the great peece of ice, it snowed hard, and it was misty weather, and when the sunne was south [¾ p. 10 A.M.] we went vpon the hatches[1] (for we alwayes held watch): where, as the master walked along the ship, he heard a beast snuffe with his nose, and looking ouer-bord he saw a great beare hard by the ship, wherewith he cryed out, a beare, a beare; and with that all our men came vp from vnder hatches,[2] and saw a great beare hard by our boat, seeking to get into it, but wee giuing a great shoute, shee was afrayd and swamme away, but presently came backe againe, and went behinde a great peece of ice, whereunto wee had made our shippe fast, and climbed vpon it, and boldly came towardes our shippe to enter into it:[3] but wee had torne our scute sayle in the shippe,[4] and lay with foure peeces before at the bootesprit,[5] and shotte her into the body, and with that, shee ranne away; but it snowed so fast that wee could not see whither shee went, but wee guest that she lay behinde a high hoouell,[6] whereof there was many vpon the peece of ice.

The tenth of August, being Saterday, the ice began mightily to breake,[7] and then wee first perceiued that the great peece of ice wherevnto wee had made our shippe fast, lay on the ground; for the rest of the ice draue along by it,

[1] *Boven opt verdeck*—above on deck.

[2] *Quamen wy alle boven*—we all came on deck.

[3] *Nae ons toe, om voor by 't schip op te climmen*—towards us, in order to climb up the bow of the ship.

[4] *Wy hadden boven opt schip ons schuyten seijl gheschoren*—we had placed the sail of our boat on deck as a screen.

[5] *Voor opt braedspit*—forward on the *capstan*.

[6] *Een hooghen heuvel*—a high hummock of ice.

[7] *Te dryven*—to drift, or move.

wherewith wee were in great feare that wee should be compassed about with the ice,[1] and therefore wee vsed all the diligence and meanes that wee could to get from thence, for wee were in great doubt:[2] and being vnder sayle, wee sayled vpon the ice, because it was all broken vnder us,[3] and got to another peece of ice, wherevnto wee made our shippe faste againe with our sheate anchor,[4] which wee made fast vpon it, and there wee lay till euening. And when wee had supped, in the first quarter[5] the sayd peece of ice began on a sodaine to burst and rende in peeces, so fearefully that it was admirable; for with one great cracke it burst into foure hundred peeces at the least: wee lying fast to it,[6] weied our cable and got off from it. Vnder the water it was ten fadome deepe and lay vpon the ground, and two fadome above the water: and it made a fearefull noyse both vnder and aboue the water when it burst, and spread it selfe abroad on all sides.

And being with great feare[7] gotten from that peece of ice, we came to an other peece, that was sixe fadome deepe vnder the water, to the which we made a rope fast on both sides.

Then wee saw an other great peece of ice not farre from vs, lying fast in the sea, that was as sharp aboue as it had been a tower; whereunto wee rowed, and casting out our lead, wee found that it lay 20 fadome deepe, fast on the ground vnder the water, and 12 fadome aboue the water.

The 11 of August, being Sunday, wee rowed to another peece of ice, and cast out our lead, and found that it lay 18 fadom deepe, fast to the ground vnder the water, and 10

[1] *Int ys beknelt soude werden*—we should be crushed by the ice.

[2] *Ghevaer*—danger.

[3] *Dattet al craeckte watter outrent was*—so that all round about us cracked.

[4] *Werp ancker*—kedge.

[5] Watch.

[6] *Met de steven daer aen*—with our stem (bow) on it.

[7] *Ghevaer*—danger.

fadome aboue the water. The 12 of August we sailed neere[1] vnder the land, ye better to shun ye ice, for y^t the great flakes that draue in the sea[2] were many fadome deepe under the water, and we were better defended from them being at 4 and 5 fadome water; and there ran a great current of water from the hill [s]. There we made our ship fast againe to a peece of ice, and called that point the small Ice Point.[3]

The 13 of August in the morning, there came a beare from[4] the east point of the land, close to our ship, and one of our men with a peece shot at her and brake one of her legs, but she crept[5] vp the hill with her three feet, and wee following her killed her, and hauing fleaed her brought the skinne aboard the ship. From thence we set saile with a little gale of winde,[6] and were forced to lauere, but after that it began to blow more[7] out of the south and south south-east.

The 15 of August we came to the Island of Orange,[8] where we were inclosed with the ice hard by a great peece of ice where we were in great danger to loose our ship, but with great labour and much paine we got to the island, the winde being south-east, whereby we were constrained to turne our ship;[9] and while we were busied thereabouts and made much noise, a beare that lay there and slept, awaked and came towards vs to the ship, so that we were forced to leaue our worke about turning of the ship, and to defend our selues against the beare, and shot her into the body, wherewith she ran away to the other side of the island, and

[1] *Noch naerder*—still nearer.

[2] *De grootste schotsen drygende ys*—the largest pieces of drift ice.

[3] *Den cleynen Ys-hoeck*

[4] *Om*—round.

[5] *Huppelde*—limped.

[6] *Met weynich coelte*—with little wind.

[7] *Began't beter te coelen*—the wind freshened.

[8] *De Eylandt van Oraengien.* On the first voyage the *Islands* of Orange are spoken of. See page 25.

[9] *Het schip verlegghen*—to change the position of the ship.

swam into the water, and got vp vpon a peece of ice, where shee lay still; but we comming after her to the peece of ice where shee lay, when she saw vs she leapt into the water and swam to the land, but we got betweene her and the land, and stroke her on the head with a hatchet, but as often as we stroke at her with the hatchet, she duckt vnder the water, whereby we had much to do before we could kill her: after she was dead we fleaed her on the land, and tooke the skin on board with vs, and after that turned[1] our ship to a great peece of ice, and made it fast thereunto.

The 16 of August ten of our men entring into one boat, rowed to the firm land at Noua Zembla, and drew the boate vp vpon the ice; which done, we went vp a high hill to see the situation of the land, and found that it reached south-east and south south-east, and then againe south, which we disliked, for that it lay so much southward: but when we saw open water south-east and east south-east, we were much comforted againe, thinking y^t^ wee had woon our voyage,[2] and knew not how we should get soone inough on boord to certifie William Barents thereof.

The 18 of August we made preparation to set saile, but it was all in vaine; for we had almost lost our sheat anchor[3] and two new ropes, and with much lost labour got to the place againe from whence we came: for the streame ran with a mighty current, and the ice drave very strongly vpon the cables along by the shippe, so that we were in fear that we should loose all the cable that was without the ship, which was 200 fadome at the least; but God prouided well for vs, so that in the end wee got to the place againe from whence we put out.

The 19 of August it was indifferent good weather, the

[1] *Brachten*—brought.

[2] *De reijs ghewonnen waer*—*i.e.*, the object of the voyage was attained, and they had become entitled to the reward offered by the States General, as mentioned on page 70.

[3] *Werp-ancker*—kedge.

winde blowing south-west, the ice still driuing, and we set saile with an indifferent gale of wind,[1] and past by ye Point of Desire,[2] whereby we were once againe in good hope. And when we had gotten aboue the point,[3] we sailed south-east into the sea-ward 4 [16] miles, but then againe we entred into more ice, whereby we were constrained to turn back againe, and sailed north-west vntil we came to ye land againe, which reacheth frō the Point of Desire to the Head Point,[4] south and by west, 6 [24] miles: from the Head Point to Flushingers Head,[5] it reacheth south-west, which are 3 [12] miles one from the other; from the Flushingers Head, it reacheth into the sea east south-east, and from Flushingers Head to the Point of the Island[6] it reacheth south-west and by south and south-west 3 [12] miles; and from the Island Point to the Point of the Ice Hauen,[7] the land reacheth west south-west 4 [16] miles: from the Ice Hauens Point to the fall of water or the Streame Bay[8] and the low land, it reacheth west and by south and east and by north, 7 [28] miles: from thence the land reacheth east and west.

The 21 of August we sailed a great way into the Ice Hauen, and that night ankored therein: next day, the streame[9] going extreame hard eastward, we haled out againe from thence, and sailed againe to the Island Point; but for that it was misty weather, comming to a peece of ice, we made the ship fast thereunto, because the winde began to blow hard south-west and south south-west. There we

[1] *Een tamelijcke coelte*—an easy breeze.

[2] *De hoeck van Begheerte.* Cape Desire.

[3] *Boven den hoeck waren*—had weathered the Cape.

[4] *De Hooft-hoeck.*

[5] *Het Vlissinghcr hooft*—Flushing Head.

[6] *De hoeck vant Eylandt.* Subsequently called *Den Eylandts hoeck*, or Island Point.

[7] *De hoeck van den Yshaven*—Ice Haven Point.

[8] *Het afwater ofte Stroom Bay.*

[9] *Stroom*—current.

went[1] vp vpon the ice, and wondred much thereat, it was such manner of ice: for on the top it was ful of earth, and there we found aboue 40 egges, and it was not like other ice, for it was of a perfect azure colonre, like to the skies, whereby there grew great contentiō in words amongst our men, some saying that it was ice, others that it was frozen land; for it lay vnreasonable high aboue the water, it was at least 18 fadome vnder the water close to the ground, and 10 fadome aboue the water: there we stayed all that storme, the winde being south-west and by west.

The 23 of August we sailed againe from the ice south-eastward into the sea, but entred presently into it againe, and wound about[2] to the Ice Hauen. The next day it blew hard north north-west, and the ice came mightily driuing in, whereby we were in a manner compassed about therewith, and withall the winde began more and more to rise, and the ice still draue harder and harder, so that the pin of the rother[3] and the rother were shorne in peeces,[4] and our boate was shorne in peeces[5] betweene the ship and the ice, we expecting nothing else but that the ship also would be prest and crusht in peeces with the ice.

The 25 of August the weather began to be better, and we tooke great paines and bestowed much labour to get the ice, wherewith we were so inclosed, to go from vs, but what meanes soeuer we vsed it was all in vaine. But when the sun was south-west [½ p. 2 P.M.] the ice began to driue out againe with the streame,[6] and we thought to saile southward about Noua Zembla, [and so westwards] to the Straites of Mergates.[7] For that seeing we could there find no passage, we hauing past[8] Noua Zembla, [we] were of opinion that our

[1] *Clommen*—climbed.
[2] *Keerden omme*—turned back.
[3] *De pen vant roer*—the tiller.
[4] *Stucken gheschoren werden*—were broken in pieces.
[5] *Gheschoren*—stove in.
[6] *Stroom*—current.
[7] *Weygats.*
[8] That is, now that we had passed.

labour was all in vaine and that we could not get through, and so agreed to go that way home againe; but comming to the Streame Bay, we were forced to go back againe, because of the ice which lay so fast thereabouts; and the same night also it froze, that we could hardly get through there with the little wind that we had, the winde then being north.

The 26 of August there blew a reasonable gale of winde, at which time we determined to saile back to the Point of Desire, and so home againe, seeing y_t we could not get through [by the way towards] y^e Wergats,[1] although we vsed al the meanes and industry we could to get forward; but whē we had past by y^e Ice Hauen y^e ice began to driue w^t such force, y^t we were inclosed round about therewith, and yet we sought al the meanes we could to get out, but it was all in vaine. And at that time we had like to haue lost three men that were vpon the ice to make way for the ship, if the ice had held ye course it went; but as we draue back againe, and that the ice also whereon our men stood in like sort draue, they being nimble, as ye ship draue by thē, one of them caught hould of the beake head, another vpon the shroudes,[2] and the third vpon the great brase[3] that hung out behind, and so by great aduenture by the hold that they took they got safe into the shippe againe, for which they thanked God with all their hearts: for it was much liklier that they should rather haue beene carried away with the ice, but God, by the nimbleness of their hands, deliuered them out of that danger, which was a pittifull thing to behold, although it fell out for the best, for if they had not beene nimble they had surely dyed for it.

The same day in the euening we got to the west side of the Ice Hauen, where we were forced, in great cold, pouerty, misery, and griefe, to stay all that winter; the winde then being east north-east.

[1] *Weygats.*

[2] *De schoot*—the sheet.

[3] *De groote bras*—the main brace.

The 27 of August the ice draue round about the ship, and yet it was good wether; at which time we went on land, and being there it began to blow south-east with a reasonable gale, and then the ice came with great force before the bough,[1] and draue the ship vp foure foote high before, and behind it seemed as if the keele lay on the ground, so that it seemed that the ship would be ouerthrowne in the place; whereupon they that were in the ship put out the boate,[2] therewith to saue their liues, and withall put out a flagge to make a signe to vs to come on board: which we perceiuing, and beholding the ship to be lifted vp in that sort, made all the haste we could to get on board, thinking that the ship was burst in peeces, but comming vnto it we found it to be in better case than we thought it had beene.

The 28 of August wee gat some of the ice from it,[3] and the ship began to sit vpright againe; but before it was fully vpright, as William Barents and the other pilot went forward to the bough,[4] to see how the ship lay and how much it was risen, and while they were busie vpon their knees and elbowes to measure how much it was, the ship burst out of the ice with such a noyse and so great a crack, that they thought verily that they were all cast away, knowing not how to saue themselues.

The 29 of August, the ship lying vpright againe, we vsed all the meanes we could, with yron hookes[5] and other instru-

[1] The bow of the ship. [2] *Bock*—yawl.

[3] *Weeck het ys wat weech*—the ice gave way a little. [4] Bow.

[5] *Koe-voeten*— crow-bars: literally *cows'-feet*, from the resemblance which the bifurcated end bears to the cloven foot of that animal. In one of the printed accounts of the riots of 1780 (the reference to which cannot just now be found), it is mentioned that a *pig's-foot*—the "jemmy" little tool used by housebreakers—was employed in the destruction of Newgate, and surprise was expressed at the power of so small an instrument to move the large stones of which that building was constructed. The small iron hammer common in our printing-offices is likewise called a *sheep's-foot;* the reason for the name being in each case the same.

ments, to breake the flakes of ice that lay one heap'd vpō the other, but al in vaine; so that we determined to commit our selues to the mercie of God, and to attend ayde from him, for that the ice draue not away in any such sort that it could helpe vs.

The 30 of August the ice began to driue together one vpon the other with greater force than before, and bare against the ship w^h a boystrous south [by] west wind and a great snowe, so that all the whole ship was borne vp and inclosed,[1] whereby all that was both about and in it began to crack, so that it seemed to burst in a 100 peeces, which was most fearfull both to see and heare, and made all ye haire of our heads to rise vpright with feare; and after y^t, the ship (by the ice on both sides that joined and got vnder the same) was driued so vpright, in such sort as if it had bin lifted vp with a wrench or vice.[2]

The 31 of August, by the force of the ice, the ship was driuen vp 4 or 5 foote high at the beake head,[3] and the hinder part thereof lay in a clift[4] of ice, whereby we thought that the ruther would be freed from the force of the flakes of ice,[5] but, notwithstanding, it brake in peeces staffe[6] and all: and if that the hinder part of the ship had bin in the ice that draue as well as the fore part was, then all the ship[7] would haue bin driuen wholly vpon the ice, or possibly haue ran on groūd,[8] and for that cause wee were in great feare, and set our scutes and our boate[9] out vpon the ice, if neede were, to saue our selues. But within 4 houres after, the ice draue awaye of it selfe, wherewith we were exceeding glad, as if we had saued our liues, for that the ship was then on

[1] *Gheknelt*—squeezed.
[2] *Vysel*—a screw or jack.
[3] *Voorsteven*—stem.
[4] Crevice.
[5] *Het schuyven des ys*—from the action (pushing) of the ice.
[6] *Pen*—tiller.
[7] *Het gantsche voorschip*—the entire fore-part of the ship.
[8] *In den gronlt ghecomen*—gone to the bottom.
[9] *Ons schuijt ende boot*—our boat and yawl.

float againe; and vpon that we made a new ruther and a staffe,[1] and hung the ruther out vpon the hooks, that if we chanced to be born[2] vpon the ice againe, as we had bin, it might so be freed from it.

The 1 of September, being Sunday, while we were at praier, the ice began to gather together againe, so that the ship was lifted vp [bodily] two foote at the least, but the ice brake not.[3] The same euening[4] the ice continued in y^t^ sort still driuing and gathering together, so that we made preparation to draw our scute and the boate ouer the ice vpon the land, the wind then blowing south-east.

The 2 of September it snowed hard with a north-east wind, and the ship began to rise vp higher vpō the ice,[5] at which time the ice burst and crakt with great force, so that we were of opinion to carry our scute on land in that fowle weather, with 13 barrels of bread and two hogsheads[6] of wine to sustaine our selues if need were.

The 3 of September it blew [just as] hard, but snowed not so much, ye wind being north north-east; at which time we began to be loose from the ice whereunto we lay fast, so that the scheck brake from the steuen,[7] but the planks wherewith the ship was lyned held the scheck fast and made it hang on;[8] but the boutloofe and a new cable, if we had falled vpon the ice, brake by the forcible pressing of the ice,[9] but held fast

[1] *Pen*—tiller. [2] Borne, carried.

[3] *Het bleef noch al dicht*—it (*the ship*) remained quite tight.

[4] *Naenoens*—afternoon.

[5] *Te schuyven vant ys*—to be moved by the ice.

[6] *Vaetkens*—small casks.

[7] *Soo dat de scheck achter van den steven geschoven werde*—so that the ice-knees (chocks) started from the stern-post.

[8] *Hielde de scheck noch dat zy daeraen bleef hangen*—kept the ice-knees still hanging on.

[9] *Ende de bouteloef brack mede stucken met een nieu cabelton dat wy op het ys hadden vast ghemaeckt*—and the bumpkin likewise broke away, with a new cable, which we had made fast to the ice. The *bouteloef* or *botteloef* (in English, *bumpkin*) is a piece of iron, projecting from the

againe in the ice; and yet the ship was staunch, which was wonder, in regard y^{t} ye ice draue so hard and in great heapes as big as the salt hills that are in Spaine,[1] and within a harquebus shot of the ship, betweene the which we lay in great feare and anguishe.

The 4 of September the weather began to cleare vp and we sawe the sunne, but it was very cold, the wind being north-east, we being forced to lye still.

The 5 of September it was faire sunshine weather and very calme; and at euening, when we had supt, the ice compassed about us againe, and we were hard inclosed therewith, the ship beginning to lye upon the one side and leakt sore,[2] but by Gods grace it became staunch againe,[3] wherewith[4] we were wholly in feare to loose the ship, it was in so great danger. At which time we tooke counsell together and caried our old sock saile,[5] with pouder, lead, peeces, muskets, and other furniture on land, to make a tent [or hut] about our scute y^{t} we had drawē vpon the land; and at that time we carried some bread and wine on land also, with some timber,[6] therewith to mend our boate, that it might serve vs in time of neede.

stem of the ship, and used for the purpose of giving more breadth to the fore-sail. It is no longer met with in square-rigged vessels, but only in small craft. It would seem to be one of the last things to which a seaman would attach a cable; but it may have been merely temporarily, or for some reason that cannot now be discovered.

[1] *Jae, datter ys berghen dreven, soo groot als de soutberghen in Spaengien* —yea, there drifted icebergs by us, as big as the salt mountains in Spain. Allusion is evidently here made to the celebrated salt mines of Cardona, about sixteen leagues from Barcelona, where "the great body of the salt forms a rugged precipice, which is reckoned between 400 and 500 feet in height". See Dr. Traill's "Observations" on the subject, in *Trans. Geol. Soc.* (1st ser.), vol. iii, p. 404. Our author's familiar comparison of the icebergs to these salt rocks, may be taken as a proof that he had been in Spain, and was personally acquainted with the locality.

[2] *Ende leet veel*—and suffered much.

[3] *Bleeft noch dicht*—still remained tight. [4] *Dan*—for.

[5] *Fock*—foresail. [6] *Timmergheretschap*—carpenter's tools.

The 6 of September it was indifferent faire sea-wether[1] and sun-shine, the wind being west, whereby we were somewhat comforted, hoping that the ice would driue away and that we might get from thence againe.

The 7 of September it was indifferent wether againe, but we perceiued no opening of the water, but to the contrary it[2] lay hard inclosed with ice, and no water at all about the ship, no not so much as a bucket full. The same day 5 of our men went on land, but 2 of them came back againe ; the other three went forward about 2 [8] miles into the land, and there found a riuer of sweet water, where also they found great store of wood that had bin driuen thither, and there they foūd the foote-steps of harts and hinds,[3] as they thought, for they were clouen footed, some greater footed than others, which made them iudge them to be so.

The 8 of September it blew hard east north-east, which was a right contrary wind to doe vs any good touching the carrying away of the ice, so that we were stil faster in the ice, which put vs in no small discomfort.

The 9 of September it blew [strongly from the] north-east, with a little snowe, whereby our ship was wholly inclosed with ice, for ye wind draue the ice hard against it, so that we lay 3 or 4 foote deepe in the ice, and our sheck in the after-steuer brake in peeces[4] and the ship began to be somewhat loose before, but yet it was not much hurt.

[1] *Oock tamelijck weder ende stilletgens*—also tolerable weather and calm.

[2] *Wy*—we.

[3] *Rheden ende Elanden*—deer and elks. It is unaccountable that, with this fact within his own personal knowledge, Gerrit de Veer should have expressly asserted, on two several occasions (pages 5 and 83), that there are no graminivorous animals in Novaya Zemlya, and pointedly distinguished between this country and Spitzbergen on that account. It is most probable that these animals had crossed over from Siberia on the ice.

[4] *Ons scheck aen de achter-steven brack altemet noch meer stucken*—and the ice-knees on the stern-post broke more and more in pieces.

In the night time two beares came close to our ship side, but we sounded our trumpet and shot at them, but hit them not because it was darke, and they ran away.

The 10 of September the wether was somewhat better, because the wind blew not so hard, and yet all one wind.

The 11 of September it was calme wether, and 8 of vs went on land, euery man armed, to see if that were true as our other three companions had said, that there lay wood about the riuer; for that seeing we had so long wound and turned about, sometime in the ice, and then againe got out, and thereby were compelled to alter our course, and at last sawe that we could not get out of the ice but rather became faster, and could not loose our ship as at other times we had done, as also that it began to be [near autumn and] winter, we tooke counsell together what we were best to doe according to the [circumstances of the] time, [in order] that we might winter there and attend such aduenture as God would send vs: and after we had debated vpon the matter, to keepe and defend ourselues both from the cold and the wild beastes, we determined to build a [shed or] house vpon the land, to keep vs therein as well as we could, and so to commit ourselves vnto the tuition of God. And to that end we went further into the land, to find out the conuenientest place in our opinions to raise our house vpon, and yet we had not much stuffe to make it withall, in regard that there grew no trees, nor any other thing in that country convenient to build it withall. But we leauing no occasion unsought, as our men went abroad to view the country, and to see what good fortune might happen unto vs, at last we found an unexpected comfort in our need, which was that we found certaine trees roots and all, (as our three companions had said before, which had been driuen vpon the shoare, either from Tartaria, Muscouia, or elsewhere, for there was none growing vpon that land; wherewith (as if God had purposely sent them vnto vs) we were

How God in our extremest need, when we were forced to live all the winter vpon the land, sent vs wood to make vs a house and to serue vs to burne in the cold winter.

much comforted, being in good hope that God would shew us some further fauour; for that wood served vs not onely to build our house, but also to burne and serve vs all the winter long; otherwise without all doubt we had died there miserably with extreme cold.

The 12 of September it was calme wether, and then our men went vnto the other side of the land, to see if they could finde any wood neerer vnto vs, but there was none.[1]

The 13 of September it was calme but very mistie wether, so that we could doe nothing, because it was dangerous for vs to go into the land, in regard that we could not see the wild beares; and yet they could smell vs, for they smell better than they see.

The 14 of September it was cleere sunshine wether, but very cold; and then we went into the land, and laid the wood in heapes one vpō the other, that it might not be couered over with ye snow, and from thence ment[2] to carry it to the place where we intended to builde our house.

The 15 of September in the morning, as one of our men held watch, wee saw three beares, whereof the one lay still behind a piece of ice [and] the other two came close to the ship, which we perceiuing, made our peeces ready to shoote at them; at which time there stod a tob full of beefe[3] vpon the ice, which lay in the water to be seasoned,[4] for that close by the ship there was no water; one of the beares went vnto it, and put in his head [into the tub] to take out a peece of the beefe, but she fared therewith as the dog did with ye pudding;[5] for as she was snatching at the beefe, she was shot into the head, wherewith she fell downe dead and neuer

[1] *Maer vonden daer gantsch weynich*—but found very little there.

[2] Meant, intended.

[3] *Vleysch*—meat.

[4] *Opt ys om te ververschen*—upon the ice, to freshen.

[5] *Maer het bequam hem als de hondt de worst*—but it agreed with her as the pudding (sausage) did with the dog. This is a Dutch proverb, made use of when any undertaking turns out badly; because the dog is said to have stolen a sausage, and to have been soundly beaten for his pains.

stir'd. [There we saw a curious sight]: the other beare stood still, and lokt vpon her fellow [as if wondering why she remained so motionless]; and when she had stood a good while she smelt her fellow, and perceiuing that she [lay still and] was dead, she ran away, but we tooke halberts and other armes with vs and followed her.[1] And at last she came againe towardes us, and we prepared our selues to withstand her, wherewith she rose vp vpon her hinder feet, thinking to rampe at vs; but while she reared herselfe vp, one of our men shot her into the belly, and with that she fell vpon her fore-feet again, and roaring as loud as she could, ran away. Then we tooke the dead beare, and ript her belly open; and taking out her guts we set her vpon her fore-feet, so that she might freeze as she stood, intending to carry her w^t^ vs into Holland if we might get our ship loose: and when we had set ye beare vpon her foure feet, we began to make a slead, thereon to drawe the wood to the place where we ment[2] to build our house. At that time it froze two fingers thicke in the salt water [of the sea], and it was exceeding cold, the wind blowing north-east.

The 16 of September the sunne shone, but towardes the euening it was misty, the wind being easterly; at which time we went [for the first time] to fetch wood with our sleads, and then we drew foure beames aboue[3] a mile [4 miles] vpon the ice and the snow. That night againe it frose aboue two fingers thicke.

The 17 of September thirteene of vs went where the wood lay with our sleads, and so drew fiue and fiue in a slead, and the other three helped to lift the wood behind, to make vs draw the better and with more ease;[4] and in that manner we

[1] *Loerden op hem of hy oock wederom comen soude*—and watched for her coming back.

[2] Meant. "Went."—*Ph.*

[3] *By nae*—nearly.

[4] *Ende drie bleven byt hout om dat te behouwen, soo werdet so veel te lichter int slepen*—and three remained behind with the wood, to hew it, so that it might be the lighter to draw.

drew wood twice a day, and laid it on a heape by the place where we ment to build our house.

The 18 of September the wind blew west, but it snowed hard, and we went on land againe to continue our labour to draw wood to our place appointed, and after dinner the sun shone and it was calme wether.

The 19 of September it was calme sunshine wether, and we drew two sleads full of wood sixe thousand paces long,[1] and that we did twice a day.

[The 20 of September we again made two journeys with the sledges, and it was misty and still weather.]

The 21 of September it was misty wether, but towards euening it cleared vp, and the ice still draue in the sea, but not so strongly as it did before, but yet it was very cold, [so that we were forced to bring our caboose[2] below, because everything froze above.]

The 22 of September it was faire still weather, but very cold, the wind being west.

The 23 of September we fetcht more wood to build our house, which we did twice a day, but it grew to be misty and still weather againe, the wind blowing east and east-north-east. That day our carpentur (being of Purmecaet[3]) dyed as we came aboord about euening.

The 24 of September we buryed him vnder the sieges[4] in the clift of a hill, hard by the water,[5] for we could not dig vp the earth by reason of the great frost and cold; and that day we went twice with our sleads to fetch wood.

The 25 of September it was darke weather, the wind blowing west and west south-west and south-west, and the

[1] *Verde*—far. The distance which, on the 16th September, they had estimated at nearly one Dutch mile.

[2] *Combuys*. The cooking-place on board ship.

[3] *Purmerend*. A town in North Holland, about eight miles north of Amsterdam.

[4] *Cinghel*—shingle.

[5] *Een afwateringhe*—a fall or current of water.

ice begā somewhat to open and driue away; but it continued not long, for that hauing driuen about the length of the shott of a great peece,[1] it lay three fadomes deepe vpon the ground: and where we lay the ice draue not, for we lay in the middle of the ice; but if we had layne in the [open or] maine sea, we would haue hoysed sayle, although it was thē late in the yeare. The same day we raised up the principles[2] of our house, and began to worke hard thereon; but if the ship had bin loose we would haue left our building and haue made our after steuen of our ship,[3] that we might haue bin ready to saile away if it had bin possible; for that it grieued vs much to lye there all that cold winter, which we knew would fall out to be extreame bitter; but being bereaued of all hope, we were compelled to make necessity a vertue, and with patience to attend what issue God would send vs.

The 26 of September we had a west wind and an open sea, but our ship lay fast, wherewith we were not a little greeued; but it was God's will, which we most[4] patiently bare,[5] and we began to make up our house:[6] part of our men fetch'd wood to burne, the rest played the carpenters and were busie aboute the house. As then we were sixteene men in all, for our carpenter was dead, and of our sixteene men there was still one or other sicke.

The 27th of September it blew hard north-east, and it frose so hard that as we put a nayle into our mouths (as when men worke carpenters worke they vse to doe), there would ice hang thereon when we tooke it out againe, and made the blood follow. The same day there came an old

[1] *Een gotelinghs schoot*—a falconet shot. See page 33, note 2.

[2] *Balcken*—the beams or principal timbers.

[3] *Ons scheck ofte achtersteven vant schip wederom ghemaeckt*—repaired the ice-knees or stern-post of the ship.

[4] Must. [5] Bear.

[6] *Thuys altemet dicht te maecken*—by degrees to close up (the sides of) the house.

beare and a yong one towards vs as we were going to our house, beeing altogether (for we durst not go alone), which we thought to shoot at, but she ran away. At which time the ice came forcibly driuing in, and it was faire sunshine weather, but so extreame cold that we could hardly worke, but extremity forced vs thereunto.

The 28 of September it was faire weather and the sun shon, the wind being west and very calme, the sea as then being open, but our ship lay fast in the ice and stirred not. The same day there came a beare to the ship, but when she espied vs she ran away, and we made as much hast as we could[1] to build our house.

The 29 of September in the morning, the wind was west, and after-noone it [again] blew east,[2] and then we saw three beares betweene vs and the house, an old one and two yong; but we notwithstanding drew our goods from the ship to the house, and so got before ye beares, and yet they followed vs: neuertheless we would not shun the way for them, but hollowed out as loud as we could, thinking that they would haue gone away; but they would not once go out of their foote-path, but got before vs, wherewith we and they that were at the house made a great noise, which made the beares runne away, and we were not a little glad thereof.

The 30 of September the wind was east and east south-east, and all that night and the next day it snowed so fast that our men could fetch no wood, it lay so close and high one vpon the other. Then we made a great fire without the house, therewith to thaw the ground, that so we might lay it about the house that it might be the closer; but it was all lost labour, for the earth was so hard and frozen so deep into the ground, that we could not thaw it, and it would haue cost vs too much wood, and therefore we were forced to leaue off that labour.

[1] *Wy ghinghen vast voort*—we kept on hard at work.
[2] "Northly."—*Ph.*

The first of October the winde blew stiffe north-east, and after noone it blew north with a great storme and drift of snow, whereby we could hardly go in[1] the winde, and a man could hardly draw his breath, the snowe draue so hard in our faces; at which time wee could not see two [or three] ships length from vs.

The 2 of October before noone the sun shone, and after noone it was cloudy againe and it snew, but the weather was still, the winde being north and then south, and we set vp our house[2] and vpon it we placed a may-pole[3] made of frozen snowe.

The 3 of October before noone it was a calme son-shine weather, but so cold that it was hard to be endured; and after noone it blew hard out of the west, with so great and extreame cold, that if it had continued we should haue beene forced to leaue our worke.

The fourth of October the winde was west, and after noone north with great store of snow, whereby we could not worke; at that time we brought our [bower] ankor vpon the ice to lye the faster, when we lay[4] but an arrow shot from the [open] water, the ice was so much driuen away.

The 5 of October it blew hard north-west, and the sea was

[1] *Teghens*--against.

[2] *We rechten het huys op*—we erected (*i.e.*, completed the erection of) our house.

[3] *Een Meyboom*—a May-*tree*. According to Adelung, in his *Hoch-deutsches Wörterbuch*, "Maybaum" is in many parts of Germany the vernacular name of the birch-tree, especially the common species (*Betula alba*), also called the May-birch, or simply "May",—as the hawthorn is called in England,—branches of which are used for ornamenting the houses and churches in the month of May.

The same name is given to the green branch of a tree, or at times the whole tree itself—frequently the birch, but not exclusively so—which is set up on occasions of festivity. This is the *meyboom* of the Dutch; and it would seem on the one hand to be the original of our English May-*pole*, and on the other to have degenerated into the *flag* which our builders are in the habit of hoisting on the chimneys of houses, when raised.

[4] *Alsoo wy nu...laghen*—because we now lay.

very open[1] and without ice as farre as we could discerne; but we lay still frozen as we did before, and our ship lay two or three foote deepe in the ice, and we could not perceiue otherwise but that we lay fast vpon the ground,[2] and there[3] it was three fadome and a halfe deepe. The same day we brake vp the lower deck of the fore-part[4] of our ship, and with those deales[5] we couered our house, and made it slope ouer head[6] that the water might run off; at which time it was very cold.

The 6 of October it blew hard west [and] south-west, but towardes euening west north-west, with a great snow [so] that we could hardly thrust our heads out of the dore by reason of ye great cold.

The 7 of October it was indifferent good wether, but yet very cold, and we calk't our house, and brake the ground about it at the foote thereof:[7] that day the winde went round about the compasse.

The 8 of October, all the night before it blew so hard and the same day also, and snowed so fast that we should haue smothered if we had gone out into the aire; and to speake truth, it had not beene possible for any man to haue gone one ships length, though his life had laine thereon; for it was not possible for vs to goe out of the house or ship.

The 9 of October the winde still continued north, and blew and snowed hard all that day, the wind as then blowing from the land; so that all that day we were forced to stay in the ship, the wether was so foule.

[1] *Heel open*—quite open.

[2] *Wy laghen tot den grondt toe bevroren*—we lay frozen right down to the ground.

[3] "Then."—*Ph.*

[4] *Het vooronder*—the forecastle.

[5] *Deelen*—planks.

[6] *In den mitten wat hooghcr*—somewhat higher in the middle.

[7] *Ende braken het achteronder mede uyt, omt huijs voort dicht te maeckten*—and pulled down likewise the poop, in order (therewith) to go on closing up the house.

The 10 of October the weather was somewhat fairer and the winde calmer, and [it] blew south-west and west south-west;[1] and that time the water flowed two foote higher then ordinary, which wee gest to proceede from the strong[2] north wind which as then had blowne. The same day the wether began to be somewhat better, so that we began to go out of our ship againe; and as one of our men went out, he chaunced to meete a beare, and was almost at him before he knew it, but presently he ranne backe againe towards the ship and the beare after him: but the beare comming to the place where before that we killed another beare and set her vpright and there let her freeze, which after was couered ouer with ice[3] and yet one of her pawes reached aboue it, shee stood still, whereby our man got before her and clome[4] vp into the ship in great feare, crying, a beare, a beare; which we hearing came aboue hatches[5] to looke on her and to shoote at her, but we could not see her by meanes of the exceeding great smoake that had so sore tormented vs while we lay vnder hatches in the foule wether, which we would not haue indured for any money; but by reason of the cold and snowy wether we were constrained to do it if we would saue our liues, for aloft in the ship[6] we must vndoubtedly haue dyed. The beare staied not long there, but run away, the wind then being north-east.

The same day about euening it was faire wether, and we went out of our ship to the house, and carryed the greatest part of our bread thither.

The 11 of October it was calme wether, the wind being south and somewhat warme, and then we carryed our wine and other victuals on land; and as we were hoysing the wine ouer-boord, there came a beare towards our ship that had laine behinde a peece of ice, and it seemed that we had

[1] "W. *and* S.W."—*Ph.* [2] "First."—*Ph.*
[3] *Sneeu*—snow. [4] Climbed. [5] *Boven*—on deck.
[6] *Boven opt schip*—on the deck of the ship.

waked her with the noise we made; for we had seene her lye there, but we thought her to be a peece of ice; but as she came neere vs we shot at her, and shee ran away, so we proceeded in our worke.

The 12 of October it blew north and [at times] somewhat westerly, and then halfe of our men [went and] slept[1] in the house, and that was the first time that we lay in it; but we indured great cold because our cabins were not made, and besides that we had not clothes inough, and we could keepe no fire because our chimney was not made, whereby it smoaked exceedingly.

The 13 of October the wind was north and north-west, and it began againe to blow hard, and then three of vs went a boord the ship and laded a slead with beere; but when we had laden it, thinking to go to our house with it, sodainly there rose such a wind and so great a storme and cold, that we were forced to go into the ship againe, because we were not able to stay without; and we could not get the beere into the ship againe, but were forced to let it stand without vpon the sleade. Being in the ship, we indured extreame cold because we had but a few clothes in it.

The 14 of October, as we came out of the ship, we found the barrell of beere standing [in the open air] vpon the sleade, but it was fast frozen at the heads,[2] yet by reason of

[1] "Kept."—*Ph.*

[2] *Zijnde een iopen vat, aen den bodem stucken ghevroren*—which, being a cask of spruce beer, had burst at the bottom through the frost.

From a very early period a decoction, in beer or water, of the leaf-buds (*gemmæ seu turiones*) of the Norway spruce fir (*Abies excelsa*), as well as of the silver fir (*Abies picea*), has been used, formerly more than at present, in the countries bordering on the Baltic Sea, in scorbutic, rheumatic, and gouty complaints. See *Magneti Bibliotheca Pharmaceutico-Medica*, vol. i, p. 2; *Pharmacopœia Borussica* (German translation by Dulk), 3rd edit., vol. i, p. 796; Pereira, *Elements of Materia Medica*, 3rd edit., vol. ii, p. 1182.

These leaf-buds are commonly called in German, *sprossen*, and in Dutch, *jopen;* whence the beer brewed therefrom at Dantzig—*cerevisia*

the great cold the beere that purged out[1] frose as hard vpon the side[2] of the barrel as if it had bin glewed thereon, and in that sort we drew it to our house and set the barrel an end, and dranke it first vp; but we were forced to melt the beere, for there was scant[3] any vnfrozen beere in the barrell, but in that thicke yeast that was vnfrozen lay the strength of the beere,[4] so that it was too strong to drinke alone, and that which was frozen tasted like water; and being melted we mixt one with the other, and so dranke it, but it had neither strength nor tast.

The 15 of October the wind blew north and [also] east and east south-east [and it was still weather]. That day we made place to set vp our dore, and shouled[5] the snowe away.

The 16 of October the wind blew south-east and south,[6] with faire calme weather. The same night there had bin a beare in our ship, but in the morning she went out againe when she saw our men. At the same time we brake vp another peece of our ship,[7] to vse the deales about the protall,[8] which as then we began to make.

The 17 of October the wind was south and south-east, calme weather, but very cold; and that day we were busied about our portaile.

dantiscana, as it is styled in the Amsterdam Latin version of 1598—acquired the appellations of *sprossenbier* and *jopenbier*, of the former of which the English name, *spruce*-beer, is merely a corruption.

The "Dantzig spruce" of commerce, which is known at the place of its manufacture by the names of *doppelbier*, *jopenbier*, and even "spruce-bier", is the representative at the present day of the medicated *sprossenbier* of former times; though, curiously enough, the ingredient from which it derived its distinctive appellation (*i.e.*, the *sprossen* or *jopen*) appears to be now left out in its preparation.

[1] *Uyt liep*—ran out.

[2] *Den bodem*—the bottom.

[3] Scarcely.

[4] *In de selrighe rochticheyt was de cracht vant gantsche bier*—in that *liquid part* lay the whole strength of the beer.

[5] Shovelled.

[6] "S.E. and by S.E."—*Ph.*

[7] *Braecken wy de kuuyt weech*—we pulled down the cabin.

[8] *Het portael*—the entrance hall, or porch.

The 18 of October the wind blew hard east [and] south-east, and then we fetched our bread out of the scute which we had drawne vp vpon the land, and the wine also, which as then was not much frozen, and yet it had layne sixe weeks therein, and notwithstanding that it had often times frozen very hard. The same day we saw an other beare, and then the sea was so couered ouer with ice that we could see no open water.

The 19 of October ye wind blew north-east, and then there was but two men and a boy in the ship, at which time there came a beare that sought forcibly to get into the ship, although the two men shot at her with peeces of wood,[1] and yet she ventured vpon them,[2] whereby they were in an extreame feare; [and] each of them seeking to saue them selues, the two men leapt into the balust,[3] and the boy clomed into the foot mast top[4] to saue their liues; meane time some of our men shot at her with a musket, and then shee ran away.

The 20 of October it was calme sunshine weather, and then againe we saw the sea open,[5] at which time we went on bord to fetch the rest of our beere out of the ship, where we found some of the barrels frozen in peeces, and the iron heapes[6] that were vpon the josam barrels[7] were also frozen in peeces.

The 21 of October it was calme sunshine wether, and then we had almost fetched all our victuals out of the ship [to the house].

[1] *Met brandthouten smeten*—threw billets of firewood at her.

[2] *Quam hy effenwel seer vreeselijck tot haer aen*—came towards them in a most terrific manner.

[3] *Int ruijm*—in the hold.

[4] *Clam int fockewant*—climbed up the fore-rigging.

[5] *Eenige openinghe van water in de zee*—some open places of water in the sea.

[6] *Banden*—hoops.

[7] *De joopen vaten*—the spruce-beer casks. See page 114, note 2.

The 22 of October the wind blew coldly and very stiff north-east, with so great a snow that we could not get out of our dores.

The 23 of October it was calme weather, and the wind blew north-east. Then we went aboord our ship to see if the rest of our men would come home to the house; but wee feared y^t^ it would blow hard againe, and therefore durst not stirre with the sicke man, but let him ly still that day, for he was very weake.

The 24 of October the rest of our men, being 8 persons, came to the house, and drew the sicke man vpon a slead, and then with great labour and paine vve drew our boate[1] home to our house, and turned the bottome thereof vpwards, that when time serued vs (if God saued our liues in the winter time) wee might vse it. And after that perceiuing that the ship lay fast and that there was nothing lesse to be expected then the opening of the water, we put our [kedge-] anchor into the ship againe, because it should not be conered ouer and lost in the snow, that in the spring time[2] we might vse it: for we alwaies trusted in God that hee would deliuer vs from thence towards sommer time either one way or other.

Things standing at this point with vs, as the sunne (when wee might see it best and highest) began to be very low,[3] we vsed all the speede we could to fetch all things with sleades out of our ship into our house, not onely meate and drinke but all other necessaries; at which time the winde was north.

The 26 of October we fetcht all things that were necessary for the furnishing of our scute and our boate:[4] and when we had laden the last slead, and stood [in the track-ropes] ready to draw it to the house, our maister looked about him and

[1] *Bock*—yawl.

[2] *Teghens den somer*—towards the summer.

[3] *Te beghceren*—to leave us.

[4] See page 78, notes 2 and 3.

saw three beares behind the ship that were comming towards vs, whereupon he cryed out aloud to feare[1] them away, and we presently leaped forth [from the track-ropes] to defend our selues as well as we could. And as good fortune was, there lay two halberds vpon the slead, whereof the master tooke one and I the other, and made resistance against them as well as we could; but the rest of our men ran to saue themselues in the ship, and as they ran one of them fell into a clift of ice,[2] which greeued vs much, for we thought verily that the beares would haue ran vnto him to deuoure him; but God defended him, for the beares still made towards the ship after the men y^t^ ran thither to saue themselues. Meane time we and the man that fel into the clift of ice tooke our aduantage, and got into the ship on the other side; which the beares perceiuing, they came fiercely towards vs, that had no other armes to defend vs withall but onely the two halberds, which wee doubting would not be sufficient, wee still gaue them worke to do by throwing billets [of fire-wood] and other things at them, and euery time we threw they ran after them, as a dogge vseth to doe at a stone that is cast at him. Meane time we sent a man down vnder hatches[3] [into the caboose] to strike fire, and another to fetch pikes; but wee could get no fire, and so we had no meanes to shoote.[4] At the last, as the beares came fiercely vpon vs, we stroke one of them with a halberd vpon the snoute, wherewith she gaue back when shee felt her selfe hurt, and went away, which the other two y^t^ were not so great as she perceiuing, ran away; and we thanked God that wee were so well deliuered from them, and so drew our slead quietly to our house, and there shewed our men what had happened vnto vs.

[1] Frighten.

[2] *In een schour tusschent ys in*—into a crevice in the ice.

[3] *Onder*—below. The caboose had been removed below on account of the extreme cold on deck, as is mentioned in page 108.

[4] Their firearms had matchlocks.

The 26 of October the wind was north and north north-west, with indifferent faire wether. Then we saw [much] open water hard by the land, but we perceiued the ice to drine in the sea still towards the ship.[1]

The 27 of October the wind blew north-east, and it snowed so fast that we could not worke without the doore. That day our men kil'd a white fox, which they flead, and after they had rosted it ate thereof, which tasted like connies[2] flesh. The same day we set vp our diall and made the clock strike,[3] and we hung vp a lamp to burne in the night time, wherein we vsed the fat of the beare, which we molt[4] and burnt in the lampe.

The 28 of October wee had the wind north-east, and then our men went out to fetch wood; but there fell so stormy wether and so great a snow, that they were forced to come home againe. About euening the wether began to breake vp,[5] at which time three of our men went to the place where we had set the beare vpright and there stood frozen, thinking to pull out her teeth, but it was cleane couered ouer with snow. And while they were there it began to snow so fast againe [with rough weather], that they were glad to come home as fast as they could; but the snow beat so sore vpon them that they could hardly see their way[6] and had almost lost their right way, whereby they had like to haue laine all that night out of the house [in the cold].

The 29 of October the wind still blew north-east, and then we fetch'd segges[7] from the sea side and laid them vpon the saile that was spread vpon our house, that it might be so

[1] *Overt schip heenen*—out beyond the ship.

[2] Rabbits.

[3] *Stelden wy onse orlogie wederom dat de clock sloech*—we set up our clock, so that it (went and) struck (the hour).

[4] Melted.

[5] *Tweer was ghebetert*—the weather improved.

[6] *Zy conden uyt haer ooghen niet sien*—they could not see out of their eyes.

[7] *Cinghel*—shingle.

much the closer and warmer: for the deales were not driuen close together, and the foule wether would not permit vs to do it.

The 30 of October the wind yet continued north-east, and the sunne was full aboue the earth a little aboue the horizon.[1]

The 31 of October the wind still blew north-east w^t^ great store of snow, whereby we durst not looke out of doores.[2]

The first of Nouember the wind still continued north-east, and then we saw the moone rise in the east when it began to be darke, and the sunne was no higher aboue the horizon than wee could well see it, and yet that day we saw it not, because of the close[3] wether and the great snow that fell; and it was extreame cold, so that we could not go out of the house.

The 2 of November[4] the wind blew west and somewhat south, but in the euening it blew north with calme wether; and that day we saw the sunne rise south south-east, and it went downe [about] south south-west, but it was not full aboue the earth,[5] but passed in the horizon along by the earth. And the same day one of our men killed a fox with a hatchet, which was flead, rosted, and eaten. Before the sunne began to decline wee saw no foxes, and then the beares vsed to go from vs.[6]

The 3 of Nouember the wind blew north-west w^t^ calme wether, and the sunne rose south and by east and somewhat more southerly, and went downe south and by west and

[1] *Doen ghingh de son heel dicht boven der aerden, weynich boven den horisont*—then the sun went quite close over the earth, but little above the horizon.

[2] *Niet een hooft dorsten uyt steecken*—not one of us durst put his head out of doors.

[3] *Doncker*—dark, overcast.

[4] "December."—*Ph.*

[5] *Hy quam met zijn volle rondicheyt niet boven*—it did not show (rise with) its whole disk.

[6] *Ende de beyren ghinghen doen mede wegh*—and then the bears also went away.

somewhat more southerly; and then we could see nothing but the upper part[1] of the sun above the horizon, and yet the land where we were was as high as the mast[2] of our ship.[3] Then we tooke the height of the sunne,[4] it being in the eleuenth degree and 41 minutes of[5] Scorpio,[6] his declination being 15 degrees and 24 minutes on the south side of the equinoctiall line.

The 4 of Nouember it was calme wether, but then we saw the sunne no more, for it was no longer aboue the horizon. Then our chirurgien[7] [prescribed and] made a bath, to bathe[8] vs in, of a wine pipe, wherein we entred one after the other, and it did vs much good and was a great meanes of our health. The same day we tooke a white fox, that often times came abroad, not as they vsed at other times; for that when the beares left vs at the setting of the sunne,[9] and came not againe before it rose,[10] the fox[es] to the contrary came abroad when they were gone.

The 5 of Nouember the wind was north and somewhat west, and then we saw [much] open water vpon the sea, but our ship lay still fast in the ice; and when the sunne had left vs we saw ye moone continually both day and night, and [it] neuer went downe when it was in the highest degree.[11]

The 6 of Nouember the wind was north-west, still wether,

[1] *Den boven cant*—the upper edge.

[2] *De mars*—the round top.

[3] The question of refraction, arising out of this and other observations, is discussed in the Introduction.

[4] *De son peijlden*—observed (*lit.* measured) the sun.

[5] "Off."—*Ph.*

[6] That is to say, the sun's longitude was 221° 48′, or 41° 48′ from the autumnal equinox.

[7] *Onse surgijn*—our surgeon.

[8] *Te stoven*—*lit.* to stew. This is the primary sense of the word *stew*, which afterwards, like its synonym *lagnio*, acquired a very different meaning. The bath used appears to have been a vapour bath.

[9] *Mette son*—with the sun.

[10] *Weder quam*—it returned.

[11] Under the parallel of 76°, the moon continues incessantly above the horizon about seven or eight days in each month.

and then our men fetcht a slead full of fire-wood, but by reason that the son was not seene it was very dark wether.

The 7 of Nouember it was darke wether and very still, the wind west; at which time we could hardly discerne the day from the night, specially because at that time our clock stood still, and by that meanes we knew not when it was day although it was day:[1] and our men rose not out of their cabens all that day[2] but onely to make water, and therefore they knew not [very well] whether the light they saw was the light of the day or of the moone, wherevpon they were of seueral opinions, some saying it was the light of the day, the others of the night; but as we tooke good regard therevnto, we found it to be the light of the day, about twelue of the clock at noone.[3]

The 8 of Nouember it was still wether, the wind blowing south and south-west. The same day our men fetcht another slead of firewood, and then also we tooke a white fox, and saw [much] open water in the sea. The same day we shared our bread amongst vs, each man hauing foure pound and ten ounces[4] for his allowance in eight daies; so that then we were eight daies eating a barrell of bread, whereas before we ate it vp in fiue or sixe daies. [As yet] we had no need to share our flesh and fish, for we had more store thereof; but our drinke failed vs, and therefore we were forced to share that also: but our best beere was for the most part wholly without any strength,[5] so that it had no sauour at all, and besides all this there was a great deale of it spilt.

[1] *Vermoeden wy geen dagh, doent al dagh was*—we thought that it was not day, when it already was day.

[2] *Hadde op dien dagh niet uyt de koy gheweest*—had not that day been out of bed.

[3] *So wast wel opt hooghste van den dagh*—it was truly the *height* of day.

[4] *Loot*—a loot or half-ounce; of which 32 go to the pound. The quantity mentioned above is equal to 4 pounds 11 ounces avoirdupois.

[5] *Was meest al de cracht uytgevroren*—had almost all its strength frozen out of it.

The 9 of Nouember the wind blew north-east and somewhat more northerly, and then we had not much day-light, but it was altogether darke.

The 10 of Nouember it was calme wether, the wind north-west; and then our men went into the ship to see how it lay, and wee saw that there was a great deale of water in it, so that the balast was couered ouer with water, but it was frozen, and so might not be pump't out.

The 11 of Nouember it was indifferent wether, the wind north-west. The same day we made a round thing[1] of cable yearn and [knitted] like to a net, [and set it] to catch foxes withall, that we might get them into the house, and it was made like a trap, which fell vpon the foxes as they came vnder it;[2] and that day we caught one.

The 12 of Nouember the wind blew east, with a little[3] light. That day we began to share our wine, euery man had two glasses[4] a day, but commonly our drink was water which we molt[5] out of snow which we gathered without the house.

The 13 of Nouember it was foule wether, with great snow, the wind east.

The 14 of Nouember it was faire cleare wether, with a cleare sky full of starres and an east-wind.

The 15 of November it was darke wether, the wind north-east, with a vading light.[6]

The 16 of Nouember it was [still] wether, with a temperate aire[7] and an east-wind.

[1] *Een ronden hoep*—a round hoop.

[2] *Dat men se in huys mochten toe halen ghelijck een val, als de vossen daer onder quamen*—so that when the foxes came under it, as in a trap, we might drag them into the house.

[3] *Met een betoghen lucht*—with a cloudy sky.

[4] *Loexkens.* In Sewel's *Dutch and Eng. Dict.* by Buys, *Lokje*, the modern form of this word, is thus defined:—"*a little hollow log*, such as seamen sometimes use to put sauce in, for want of another dish: hence it is that some will call any *saucer* with that name."

[5] Melted.

[6] *Een betoghen lucht*—a cloudy sky.

[7] *Een ghetemperden lucht*—a moderate sky.

The 17 of Nouember it was darke wether and a close aire,[1] the wind east.

The 18 of Nouember it was foule wether, the wind south-east. Then the maister cut vp a packe of course [woollen] clothes,[2] and divided it amongst the men that needed it, therewith to defend vs better from the cold.

The 19 of Nouember it was foule wether, with an east wind; and then the chest with linnin was opened and deuided amongst the men for shift,[3] for they had need of them, for then our onely care was to find all the means we could to defend our body from the cold.

The 20 of Nouember it was faire stil weather, the wind easterly. Then we washt our sheets,[4] but it was so cold that when we had washt and wroong[5] them, they presently froze so stiffe [out of the warm water], that, although we lay'd them by a great fire, the side that lay next the fire thawed, but the other side was hard frozen; so that we should sooner haue torne them in sunder[6] than haue opened them, whereby we were forced to put them into the seething[7] water again to thaw them, it was so exceeding cold.

The 21 of Nouember it was indifferent[8] wether with a north-east wind. Then wee agreed that euery man should take his turne to cleaue wood, thereby to ease our cooke, that had more than work inough to doe twice a day to dresse meat and to melt snowe for our drinke; but our master and the pilot[9] were exempted from y^t^ work.

The 22 of Nouember the wind was south-est, [and] it was faire wether, then we had but[10] seuenteene cheeses,[11] whereof

[1] *Een betoghen lucht*—a cloudy sky.

[2] A piece of coarse woollen cloth.

[3] *Tot hemden*—for shirts.

[4] *Hemden*—shirts.

[5] Wrung.

[6] *Se ghebroken*—broken them.

[7] Boiling.

[8] *Bequaem*—suitable, good.

[9] *De schipper ende stuerman;* namely, Jacob Heemskerck and William Barentsz.

[10] *Noch*—yet.

[11] *Koyen kasen* — *lit.* cow-cheeses, because they were made from the milk of cows, and not of sheep, as is not uncommon in the Netherlands.

one we ate amonst vs and the rest were deuided to euery man one for his portion, which they might eate when he list.

The 23 of Nouember it was indifferent good weather, the wind south-east, and as we perceiued that the fox[es] vsed to come oftener and more than they were woont, to take them the better we made certaine traps of thicke plancks, wheron we laid stones, and round about them placed peeces of shards[1] fast in the ground, that they might not dig vnder them; and so [we occasionally] got some of the foxes.

The 24 of Nouember it was foule wether, and the winde north-west,[2] and then we [again] prepared our selues to go into the bath, for some of vs were not very well at ease; and so foure of vs went into it, and when we came out our surgion[3] gave us a purgation, which did vs much good; and that day we took foure foxes.

[1] *Ejnde van sparren*—ends of spars. [2] "North-east."—*Ph.*

[3] *De barbier*—the barber. This is the person who on a former occasion (page 121) was called *de surgijn*—the surgeon. In the general decline of science during the middle ages, surgery, as a branch of medicine, became neglected, and its practice, in the rudest form, fell into the hands of the barber; from whose ordinary avocations of cutting the hair, shaving the beard, paring the nails, etc., the step was not very great to the operations of tooth-drawing, bleeding, cupping, dressing wounds, setting broken limbs, etc. And, with these functions of the surgeon, the barber not unreasonably assumed his title also.

The rivalry between these barber-surgeons and the pure surgeons, who again sprang up on the revival of learning, is matter of history.

In England, a compromise between the two rival bodies was early effected by means of the union of the barber-surgeons and surgeons of London, by the statute of 32 Hen. VIII, c. 41 (A.D. 1540), which, while nominally amalgamating them, virtually effected the separation of the two professions; inasmuch as those members of the united corporation "using barbery"— as it was somewhat barbarously expressed — were prohibited from "occupying any surgery, letting of blood, or any other thing belonging to surgery, drawing of teeth only except"; while, on the other hand, surgeons were forbidden to "use barbery". And the natural consequence was their formal separation into two entirely distinct bodies by the Act of 18 Geo. II, c. 15 (A.D. 1745).

On the continent, the barber-surgeon retained his rank to a much later date; and in France, in particular, till the revolution of 1793.

The 25 of Nouember it was faire cleare wether, the winde west; and that day we tooke two foxes with a springe that we had purposely set vp.

The 26 of Nouember it was foule weather, and a great storme with a south-west wind and great store of snowe, whereby we were so closed vp in the house that we could not goe out, but were forced to ease ourselues within the house.

The 27 of Nouember it was faire cleare weather, the wind south-west; and then we made more springes to get foxs; for it stood vs vpon to doe it,[1] because they served vs for meat, as if God had sent them purposely for vs, for wee had not much meate.

But, instead of abandoning the razor to the hair-dresser, he still claimed the right of wielding it, "as being a *surgical* instrument"; so that, in order to distinguish between the two, it was ordained by Louis XIV, that the barber-surgeon should have for his sign a brass basin, and should paint his shop-front red or black only, whereas the barber-hair-dresser should display a pewter basin, and paint his shop-front in any other colour. Blue was the colour usually adopted by the barber-hairdressers, and to this colour their name has in consequence become attached. That the connexion between the two is still not lost sight of in France, is proved by the following extract from the *Comédies et Proverbes* of Alfred de Musset, p. 510:—

"*Madame de Léry.*—Autant j'adore le lilas, autant je déteste le bleu.
Mathilde.—C'est la couleur de la constance.
Madame de Léry.—Bah! c'est la couleur des perruquiers."

Un Caprice.

Those professors of shaving and hairdressing, whose *poles*, painted red or black alternating with white, still decorate our streets, commit therefore a great mistake in using either of these two colours. "True like the needle to the pole," as Lieutenant Taffril wrote to Jenny Caxon ("To cast up to her that her father 's a barber and has a pole at his door, and that she 's but a manty-maker hersel! Fy for shame!"), they should confine themselves to the colour of constancy—and of the hairdressers; unless, indeed, they should happen to unite tooth-drawing to their other avocations, in which case they might perhaps, in strict right, be entitled to set up the red or black stripe of the barber-surgeons.

[1] *Die gheleghentheyt diente van ons waer ghenomen te zijn*—it was important for us to avail ourselves of the opportunity.

The 28 of Nouember it was foule stormie weather, and the wind blew hard out of the north, and it snew hard, whereby we were shut vp againe in our house, the snow lay so closed before the doores.[1]

The 29 of Nouember it was faire cleare wether and a good aire,[2] ye wind northerly; and we found meanes to open our doore by shoueling away the snowe, whereby we got one of our dores open; and going out we found al our traps and springes cleane[3] couered ouer with snow, which we made cleane, and set them vp again to take foxes; and that day we tooke one, which as then serued vs not onely for meat, but of the skins we made caps to were[4] vpon our heads, therewith to keep them warm from the extreame cold.

The 30 of Nouember it was faire cleare weather, the wind west, and [when the watchers[5] were about south-west, which according to our calculation was about midday,] sixe of vs went to the ship, all wel prouided of arms, to see how it lay; and when we went vnder the fore decke,[6] we tooke a foxe aliue in the ship.

The 1 of December it was foule weather, with a south-west wind and great stoare of snow, whereby we were once againe stopt vp in the house, and by that meanes there was so great a smoke in the house that we could hardly make fire, and so were forced to lye all day in our cabens, but the cooke was forced to make fire to dresse our meat.

The 2 of December it was still foule weather, whereby we were forced to keep stil in the house, and yet we could hardly sit by the fire because of the smoake, and therefore stayed still [for the most part] in our cabens; and then we heated stones, which we put into our cabens to warm our feet, for that both the cold and the smoke were vnsupportable.

[1] *Alle de deuren waren toe ghewaeyt*—all the doors were blown to.
[2] *Een helderen lucht*—a clear sky.
[3] Quite.
[4] Wear.
[5] See page 61, note 8.
[6] *Ondert verdeck*—under the deck, *i.e.*, below.

The 3 of December we had the like weather, at which times as we lay in our cabans we might heare the ice crack in the sea, and yet it was at the least halfe a mile [two miles] from vs, which made a hugh noyse [of bursting and cracking], and we were of oppinion that as then the great hils of ice[1] which wee had seene in the sea in summer time [lying so many fathoms thick] brake one from the other.[2] And for that during those 2 or 3 days, because of the extream smoake, we made not so much fire as we commonly vsed to doe, it froze so sore within the house that the wals and the roofe thereof were frozen two fingers thicke with ice, and also in our cabans[3] where we lay. All those three daies, while we could not go out by reason of the foule weather, we set vp the [sand-]glas of 12 houres, and when it was run out we set it vp againe, stil watching it lest we should misse our time. For the cold was so great that our clock was frozen, and might[4] not goe although we hung more waight on it then before.

The 4 of December it was faire cleare weather, the wind north,[5] and then we began euery man by turne to dig open our dores that were closed vp with snow; for we saw that it would be often to doe, and therefore we agreed to work by turns, no man excepted but the maister and the pilot.

The 5 of December it was faire weather with an east wind, and then we made our springes[6] cleane againe to take foxes.

The 6 of December it was foule weather againe, with an easterly wind and extreame cold, almost not to be indured; whereupon wee lookt pittifully one vpon the other, being in great feare, that if the extremity of ye cold grew to be more and more we should all die there with cold, for that what

[1] Icebergs.

[2] *Op malcanderen stuwen ende gheschoven werden*—were drifting and heaping one upon the other.

[3] *Jae selfs in de koyen*—yea, even in the cots.

[4] *Mochte*—could. [5] "North-east."—*Ph.* [6] *Vallen*—traps.

fire soeuer we made it would not warme vs: yea, and our sack,[1] which is so hotte,[2] was frozen very hard, so that when [at noon] we were euery man to haue his part, we were forced to melt it in[3] the fire, which we shared euery second day about halfe a pint for a man, wherewith we were forced to sustain onr selues, and at other times we drank water, which agreed not well with the cold, and we needed not to coole it with snowe or ice,[4] but we were forced to melt it out of the snow.

The 7 of December it was still foule weather, and we had a great storme with a north-east wind,[5] which brought an extreme cold with it; at which time we knew not what to do, and while we sate consulting together what were best for vs to do, one of our companions gaue vs counsell to burne some of the sea-coles[6] that we had brought out of the ship, which would cast a great heat and continue long; and so at euening we made a great fire thereof, which cast a great heat. At which time we were very careful to keepe it in,[7] for that the heat being so great a comfort vnto vs, we tooke care how to make it continue long; whereupon we agreed to stop vp all the doores and the chimney, thereby to keepe in the heate, and so went into our cabans[8] to sleepe, well comforted with the heat, and so lay a great while talking together; but at last we were taken with a great swounding and daseling in our heads,[9] yet some more then other some,

[1] *Sareetsche secke*—Xeres seco, or sherry-sack.

[2] *Heet*—hot, strong. [3] *Over*—over.

[4] Independently of the quiet humour of this observation, it is worthy of remark, as showing that at that early period the cooling of wine by means of ice or snow was practised by the Dutch.

[5] *Een vlieghenden storm uyten n. o.*—a hurricane out of the N.E.

[6] *Steen-colen*—stone or mineral coal; so called to distinguish it from charcoal, the usual fuel on the continent.

[7] *Maer wy wachtede ons voor de weerstuijt niet*—but we did not guard ourselves against the consequences.

[8] Cots.

[9] *Een sodanighen duyselinghe*—a sudden dizziness.

which we first perceiued by a sick man and therefore the lesse able to beare it, and found our selues to be very ill at ease, so that some of vs that were strongest start[1] out of their cabans, and first opened the chimney and then the doores, but he that opened the doore fell downe in a swound[2] [with much groaning] vppon the snow; which I hearing, as lying in my caban[3] next to the doore, start vp[4] [and there saw him lying in a swoon], and casting vinegar in his face[5] recouered him againe, and so he rose vp. And when the doores were open, we all recouered our healthes againe by reason of the cold aire; and so the cold, which before had beene so great an enemy vnto vs, was then the onely reliefe that we had, otherwise without doubt we had [all] died in a sodaine swound.[6] After y^t^, the master, when we were come to our selues againe, gaue euery one of vs a little wine to comfort our hearts.

The 8 of December it was foule weather, the wind northerly, very sharpe and cold, but we durst lay no more coles on as we did the day before, for that our misfortune had taught vs that to shun one danger we should not run into an other [still greater].

The 9 of December it was faire cleare weather, the skie full of starres; then we set our doore wide open, which before was fast closed vp with snowe, and made our springes ready to take foxes.

The 10 of December it was still faire star-light weather, the wind north-west.[7] Then we tooke two foxes, which were good meate for vs, for as then our victuals began to be scant and the cold still increased, whereunto their skins serued vs for a good defence.

[1] Started. [2] Swoon. [3] Cot.

[4] *Liep daer heenen*—ran thither.

[5] *Haelde flucks edick ende vreef hem dat in zijn aensicht* — quickly fetched some vinegar and rubbed his face with it.

[6] *In eenen swijm*—in a swoon. [7] "North-east."—*Ph.*

The 11 of December it was faire weather and a clear aire,[1] but very cold, which he that felt not would not beleeue, for our shoos[2] froze as hard as hornes vpon our feet, and within they were white frozen, so that we could not weare our shooes, but were forced to make great pattens,[3] ye vpper part being ship[4] skins, which we put on ouer three or foure paire of socks, and so went in them to keepe our feet warme.

The 12 of December it was faire cleare weather, with [a bright sky and] a north-west wind, but extreame cold, so that our house walles and cabans where[5] frozen a finger thicke, yea and the clothes vpon our backs were white ouer with frost [and icicles]; and although some of vs were of opinion that we should lay more coles vpon the fire to warme vs, and that we should let the chimney stand open, yet we durst not do it, fearing the like danger we had escaped.

The 13 of December it was faire cleare wether, with an east wind. Then we tooke another foxe, and took great paines about preparing and dressing of our springes, with no small trouble, for that if we staied too long without the doores, there arose blisters[6] vpon our faces and our eares.

The 14 of December it was faire wether, the wind north-east and the sky full of starres. Then we tooke the height of ye right shoulder of the Rens,[7] when it was south south-west and somewhat more westerly (and then it was at the

[1] *Een helderen lucht*—a bright sky.

[2] Shoes.

[3] *Wyde clompen*—loose clogs or slippers.

[4] Sheep.

[5] Were.

[6] *Blaren ende buylen*—"blains and boils."

[7] *De Rens*—the Giant, as the constellation Orion is called, after the Arabic *El-djebbâr*. The star Bellatrix *γ Orionis*, which was here observed, is usually said to be in the *left* shoulder. It depends, however, upon which way "the Giant" is considered as looking. The exact declination of this star for the end of the year 1596 is + 5° 58′,4 N.; so that, after allowing 2′,6 for refraction, the complement of the height of the Pole is 14° 17′, and the height of the Pole is 75° 43′.

It is not possible for Betelgueze, (*α*) in the *right* shoulder of Orion, to have been the star observed; for the latitude resulting from it would be upwards of 79°.

highest in our [common] compas), and it was eleuated aboue the horison twenty degrees and eighteen[1] minutes, his declination being six degrees and eighteene minuts on the north side of the lyne, which declination being taken out of the height aforesaid there rested fourteen degrees, which being taken out of 90 degrees, then the height of ye Pole was seuenty sixe degrees.

The 15 of December it was still faire [bright] weather, the wind east. That day we tooke two foxes, and saw the moone rise east south-east, when it was twenty-sixe daies old; [and it was] in the signe of Scorpio.

The 16 of December it was faire cleare weather, the wind [north] east. At that time we had no more wood in the house, but had burnt it all; but round about our house there lay some couered ouer with snow, which with great paine and labour we were forced to digge out and so shouell away the snow, and so brought it into the house, which we did by turns, two and two together, wherein we were forced to vse great speede, for we could not long endure without the house, because of the extreame cold,[2] although we ware[3] the foxes skinnes about our heads and double apparell vpon our backs.

The 17 of December the wind still held north-east, with faire weather, and so great frosts that we were of opinion that if there stood a barrel full of water[4] without the doore, it would in one night freeze from the top to the bottome.

The 18 of December the wind still held north-east, with faire wether. Then seuen of vs went out vnto the ship to see how it lay; and being vnder the decke, thinking to find a foxe there, we sought all the holes,[5] but we found none: but when we entered into the caben,[6] and had stricken fire to

[1] "Twenty-eight."—*Ph.*

[2] *De onuytspreklijcke ondraechelijcke coude*—the inexpressible, intolerable cold.

[3] Wore.

[4] *Een joopen vat met water*—a spruce-beer cask full of water.

[5] *Stopten eerst alle de gaten dicht toe*—first closely *stopped* all the holes.

[6] *Ruijm*—hold.

see in what case the ship was and whether the water rose higher in it, there wee found a fox, which we tooke and carried it home, and ate it, and then we found that in eighteene dayes absence (for it was so long since we had beene there) the water was risen about a finger high, but yet it was all ice, for it froze as fast as it came in, and the vessels which we had brought with vs full of fresh water out of Holland were frozen to the ground.[1]

The 19 of December it was faire wether, the wind being south. Then we put each other in good comfort that the sun was then almost half ouer and ready to come to vs againe, which we sore longed for, it being a weary time for vs to be without the sunne, and to want the greatest comfort that God sendeth vnto man here vpon the earth, and that which reioiceth euery liuing thing.

The 20 of Dece[mber] before noone it was faire cleare wether, and then we had taken a fox; but towards euening there rose such a [violent] storm [and tempest] in the south-west, with so great a snow, that all the house was inclosed therewith.

The 21 of December it was faire cleere wether, with a north-east wind. Then we made our doore cleane againe and made a way to go out, and clensed our traps for the foxes, which did vs great pleasure when we tooke them, for they seemed as dainty as uenison unto vs.

The 22 of December it was foule wether with great store of snow, the wind south-west, which stopt up our doore againe, and we were forced to dig it open againe, which was almost euery day to do.

The 23 of December it was foule wether, the wind south-west with great store of snow, but we were in good comfort that the sunne would come againe to vs, for (as we gest[2]) that day he was in Tropicus Capricorni, which is the furthest

[1] *Grondt*—bottom. [2] Calculated.

signe[1] that the sunne passeth on the south side of the line, and from thence it turneth north-ward againe. This Tropicus Capricorni lyeth on the south side of the equinoctial line, in twenty-three degrees and twenty-eight[2] minutes.

The 24 of December, being Christmas-euen, it was faire wether. Then we opened our doore againe and saw much open water in the sea: for we had heard the ice crack and driue, [and] although it was not day,[3] yet we could see so farre. Towards euening it blew hard out of the north-east, with great store of snow, so that all the passage that wee had made open before was [immediately] stopt vp againe.

The 25 of December, being Christmas day, it was foule wether with a north-west wind; and yet, though it was [very] foule wether, we hard[4] the foxes run ouer our house, wherewith some of our men said it was an ill signe; and while we sate disputing why it should be an ill signe, some of our men made answere that it was an ill signe because we could not take them, to put them into the pot to rost them,[5] for that had been a very good signe for vs.

The 26 of December it was foule wether, the wind north-west, and it was so [extraordinarily] cold that we could not warme vs, although we vsed all the meanes we could, with greate fires, good store of clothes, and with hot stones and billets[6] laid vpon our feete and vpon our bodies as we lay in our cabens;[7] but notwithstanding all this, in the morning our cabens were frozen [white], which made vs behold one the other with sad countenance. But yet we comforted our selues againe as well as we could, that the sunne was then as low as it could goe, and that it now began to come to vs againe,[8]

[1] *T'uyterste perck*—the utmost limit. [2] "Eighteen."—*Ph.*

[3] *Hoe well datter ghcen dagh was*—though there was no daylight.

[4] Heard. [5] *In de pot ofte aent spit*—in the pot or on the spit.

[6] *Keughels*—balls. [7] Cots.

[8] *Datter int afgaen vanden bergh was: te weten, dat de son zijn wegh wederom nae ons toe nam*—that we were now going down hill; that is to say, the sun was now on his way back to us.

and we found it to be true; for that the daies beginning to lengthen the cold began to strengthen, but hope put vs in good comfort and eased our paine.[1]

The 27 of December it was still foule wether with a north-west wind, so that as then we had not beene out in three daies together, nor durst not thrust our heads out of doores; and within the house it was so extreme cold, that as we sate [close] before a great fire, and seemed to burne[2] [our shins] on the fore side, we froze behinde at our backs, and were al white, as the country men[3] vse to be when they come in at the gates of the towne in Holland with their sleads,[4] and haue gone[5] all night.

The 28 of December it was still foule wether, with a west wind, but about euening it began to cleare vp. At which time one of our men made a hole open at one of our doores, and went[6] out to see what news abroad,[7] but found it so hard wether that he stayed not long, and told vs that it had snowed so much that the snow lay higher than our house, and that if he had stayed out longer his eares would undoubtedly haue been frozen off.

[1] *De daghen die langhen zijn de daghen die stranghen, dan hoope dede pijn versoeten*—"the days that lengthen are the days that become more severe [?];" but "hope sweetened pain". These are two Dutch proverbs, strung together somewhat after the fashion of Sancho Panza. The former is equivalent to "as the day lengthens, so the cold strengthens", and "cresce 'l dì, cresce 'l freddo", cited in Ray's *English Proverbs*, p. 37.

[2] *Bynaest...verbranden*—almost burned.

[3] *Boers*—boors, peasants.

[4] *Ter poorten van de steden incomen*—come in *at the gates* of the towns. It would almost seem that in the text the word is *sleden* and not *steden;* so that the meaning would be, "come in at the gates *from their sledges*". But, as the fact is that the boors enter the gates in their carts, and that those who come in sledges must necessarily reach the town by the water side, where there are no gates, it can scarcely be doubted that the proper reading is *steden*. The translator appears to have wished to provide for both cases.

[5] *Onder weghen ghewcest zijn*—have been travelling.

[6] *Croop*—crept.

[7] *Hoet daer ghestelt was*—how matters stood there.

The 29 of December it was calme wether and a pleasant aire,[1] the wind being southward. That day he whose turne it was opened the doore and dig'd a hole through the snow, where wee went out of the house vpon steps as if it had bin out of a seller,[2] at least seuen or eight steps high, each step a foote from the other. And then we made cleane our springes [or traps] for the foxes, whereof for certain[3] daies we had not taken any; and as we made them cleane, one of our men found a dead fox in one of them that was frozen as hard as a stone, which he brought into the house and thawed it before the fire, and after fleaing it some of our men ate it.

The 30 of December it was foule wether againe, with a storme out of the west and great store of snow, so that all the labour and paine that we had taken the day before, to make steps to go out of our house and to clense our springes,[4] was al in vaine; for it was al couered over w^t^ snow againe higher then it was before.

The 31 of December it was still foule wether with a storme out of the north-west, whereby we were so fast shut vp into the house as if we had beene prisoners, and it was so extreame cold that the fire almost cast no heate; for as we put our feete to the fire, we burnt our hose[5] before we could feele the heate, so that we had [constantly] work inough to do to patch our hose. And, which is more, if we had not sooner smelt then felt them, we should haue burnt them [quite away] ere we had knowne it.

[Anno 1597]

After that, with great cold, danger, and disease,[6] we had brought the[7] yeare vnto an end, we entered into ye yeare of our Lord God 1597, ye beginning whereof was in ye same maner as ye end of anno 1596 had been; for the

[1] *Een betoghen lucht*—a cloudy sky.
[2] Cellar.
[3] Several.
[4] *De trappen te maecken*—to set the traps.
[5] Stockings.
[6] *Onghemack*—hardship.
[7] "This."—*Ph.*

wether continued as cold, foule, [boisterous], and snowy as it was before, so that vpon the first of January we were inclosed in the house, ye wind then being west. At the same time we agreed[1] to share our wine euery man a small measure full, and that but once in two daies. And as we were in great care and feare that it would [still] be long before we should get out from thence, and we [sometimes] hauing but smal hope therein, some of vs spared to drink wine as long as wee could, that if we should stay long there we might drinke it at our neede.

The 2 of January it blew hard, with a west wind and a great storme, with both snow and frost, so that in four or five daies we durst not put our heads out of ye doores; and as then by reason of the great cold we had almost burnt all our wood [that was in the house], notwithstanding we durst not goe out to fetch more wood, because it froze so hard and there was no being without the doore; but seeking about we found some [superfluous] pieces of wood that lay ouer the doore, which we [broke off and] cloue, and withall cloue the blocks[2] whereon we vsed to beate our stock-fish,[3] and so holp our selues so well as we could.

The 3 of January it was all one weather [constantly boisterous, with snow and a north-west wind, and so exceedingly cold that we were forced to remain close shut up in the house], and we had little wood to burne.

The 4 of January it was still foule stormie weather, with much snow and great cold, the wind south-west, and we were forced to keepe [constantly shut up] in the house. And to know where the wind blew, we thrust a halfe pike out at ye chimney w^t^ a little cloth or fether upon it; but [we had to look at it immediately the wind caught it, for] as soone as we thrust it out it was presently frozen as hard as a peece of

[1] *Begonnen*—began. [2] *Het block*—the block.

[3] *Bergher visch:* so called because it comes principally from Bergen in Norway.

wood, and could not go about nor stirre with the wind [so that we said to one another how tremendously cold it must be out of doors].

The 5 of January it was somewhat still and calme weather.[1] Then we digd our doore open againe, that we might goe out and carry out all the filth that had bin made during the time of our being shut in the house, and made euery thing handsome, and fetched in wood, which we cleft; and it was all our dayes worke to further our selues as much as we could, fearing lest we should be shut up againe. And as there were three doores in our portall, and for y^t^ our house lay couered ouer in snow, we took ye middle doore thereof away, and digged a great hole in the snow that laie without the house, like to a side of a vault,[2] wherein we might go to ease our selues and cast other filth into it. And when we had taken paines[3] al day, we remembered our selues that it was Twelf Even,[4] and then we prayed our maister[5] that [in the midst of all our troubles] we might be merry that night, and said that we were content to spend some of the wine that night which we had spared and which was our share euery second day, and whereof for certaine daies we had not drunke; and so that night we made merry and drunke to the three kings.[6] And

[1] *Wasset weder wat besadicht*—the weather was somewhat milder.

[2] *Als een verwulfsel van een boogh ofte kelder*—like the arch of a vault or cellar.

[3] *Gheslooft*—toiled.

[4] *Drie Coninghen Avondt*—Three Kings' Even. The *fifth* of January, as being the *eve* of the Feast of the Epiphany, is properly "Twelfth Night". But, in England, the vigils or eves of all feast days between Christmas and the Purification having been abolished at the Reformation (see Wheatley, *Rational Illustration of the Book of Common Prayer*, Oxford, 1846, p. 165), this season of festivity, thus deprived of its religious character, was transferred to the evening *after* the feast; so that Twelfth Night was thenceforward kept on the evening of the 6th of January.

[5] *Begheerden aen den schipper*—requested the skipper.

[6] *Coninexken speelden*—drew for king (*lit.* played at kings).

therewith we had two pound of meale [which we had taken to make paste for the cartridges], whereof we [now] made pancakes with oyle, and [we laid to] euery man a white bisket[1] which we sopt in [the] wine. And so supposing that we were[2] in our owne country and amongst our frends, it comforted vs as well as if we had made a great banket[3] in our owne house. And we also made[4] tickets, and our gunner was king of Noua Zembla, which is at least two hundred [800] miles long[5] and lyeth betweene two seas.[6]

The 6 of January it was faire weather, the wind north-east. Then we went out and clensed our traps [and springes] to take foxes, which were our uenison; and we digd a great hole in the snow where our fire-wood lay, and left it close aboue like a vault [of a cellar], and from thence fetcht out our wood as we needed it.

The 7 of January it was foule weather againe, with a north-west wind and some snow, and very cold, which put vs in great feare to be shut up in the house againe.

The 8 of January it was faire weather againe, the wind north. Then we made our [traps and] springes ready to get more uenison, which we longed for. And then we might [sometimes begin to] see and marke day-light, which then began to increase, that the sunne as then began to come towards vs againe, which thought put vs in no litle comfort.

The 9 of January it was foule wether, with a north-west wind, but not so hard wether as it had bin before, so y[t] we might[7] go out of the doore to make cleane our springes; but it was no need to bid vs go home againe, for the cold taught

[1] *Een wittbroods beschuijt* — a (captain's) biscuit made of wheaten flour.

[2] Fancying ourselves to be.

[3] Banquet.

[4] *Uytgedeelt*—distributed.

[5] This estimated length includes the island of Waigatsch.

[6] Namely, the Northern Ocean and the Sea of Kara.

[7] Could.

vs by experience not to stay long out, for it was not so warm to get any good by staying in the aire.[1]

The 10 of January it was faire weather, with a north wind. Then seuen of vs went to our ship, well armed, which we found in the same state we left it in, and [in] it we saw many footsteps of beares, both great and small, whereby it seemed that there had bin more than one or two beares therein. And as we went under hatches, we strooke fire and lighted a candle, and found that the water was rysen a foote higher in the ship.

The 11 of January it was faire weather, the wind north-west[2] and the cold began to be somewhat lesse, so that as then we were bold to goe [now and then] out of the doores, and went about a quarter of a mile [one mile] to a hill, from whence we fetched certaine stones, which we layd in the fire, therewith to warme vs in our cabans.

The 12 of January it was faire cleare weather, the wind west.[3] That euening it was very cleare, and the skie full of stars. Then we tooke the height of Occulus Tauri,[4] which

[1] *Want de coude leerde ons noch wel niet langhe uyt blyven, om dattet buyten niet snick heet was*—for the cold itself was quite enough to teach us not to stay long out, inasmuch as out of doors it was not smoking hot.

[2] "N.E."—*Ph.* [3] "N.W."—*Ph.*

[4] *Oculus Tauri.* The exact declination for this year of *a Tauri* or Aldeberan is + 15° 40′,2; so that the complement of the height of the Pole, after allowing 1′,7 for refraction, is 14° 12′,1, and the height of the Pole is 75° 47′,9. The mean of this observation, and that of *γ Orionis*, on December 14th, 1596 (page 131), is 75° 45′,5, which may be regarded as being a very close approximation to the true latitude of the expedition's wintering-place. From the author's statement, it appears that William Barentsz was of opinion that they were to the north of the 76th parallel, instead of to the south, as this corrected calculation makes their position to be. This only shows the importance of recording and publishing all observations in their original form, regardless of their apparent results, however anomalous. When a traveller's observations are for years kept back, in order that they may be "revised", the world may not uncharitably surmise that eventually they will not be presented to it in their integrity.

is a bright and well knowne star, and we found it to be eleuated aboue ye horison twenty nine degrees and fifty foure minutes, her declination being fifteene degrees fifty foure minutes on the north side of the lyne. This declination being substracted from the height aforesaid, then there rested fourteene degrees; which substracted from ninety degrees, then the height of the pole was seuenty sixe degrees. And so by measuring the height of that starre and some others, we gest that ye sun was in the like height,[1] and that we were there vnder seuenty sixe degrees, and rather higher than lower.

The 13 of January it was faire still weather, the wind westerlie; and then we perceaued that daylight began more and more to increase, and wee went out and cast bullets at the bale of ye flag staffe, which before we could not see when it turnd about.[2]

The 14 of January it was faire weather and a cleare light,[3] the wind westerlie; and that day we tooke a fox.[4]

The 15 of January it was faire cleare weather, with a west wind; and six of vs went aboord the ship, where we found the bolck-vanger,[5] which the last time that we were in the ship we stucke in a hole in the fore decke[6] to take foxes, puld out of the hole, and lay in the middle of the ship, and

[1] *Also dat dese metinghe vande voornoemde sterre ende eenighe andere sterren, soo mede de metinghe van de sonne, alle orer een quamen dat wy*—so that the measurement of the above-named star and of some other stars, as well as the measurement of the sun, all agreed (in showing) that we.....

It will be seen in the sequel that the observations of the sun agree rather in showing the contrary of what is above contended for.

[2] *Liepen uyt ende schoten de cloot met de cloot van de vlagh-spil, die wy voor heen niet conden sien loopen*—ran out and played at ball (*lit.* threw the ball) with the truck of the flag-staff, which before that time we had not been able to see run.

[3] *Stil weder met een betoghen lucht*—calm weather with a cloudy sky.

[4] *Twee vossen*—two foxes.

[5] *Bolckvanger*—a seaman's rough coat.

[6] *Verdeck*—deck.

al torne in peeces by the bears, as we perceiued by their foote-steps.

The 16 of January it was faire weather, the wind northerly; and then we went now and then out of the house to strech out our ioynts and our limbs with going and running,[1] that we might not become lame; and about noone time we saw a certaine rednes in the skie, as a shew or messenger of the sunne that began to come towards vs.

The 17 of January it was cleare weather, with a north wind, and then still more and more we perceiued that the sun began to come neerer vnto vs; for the day was somewhat warmer, so that when wee had a good fire there fell great peeces of ice downe from the walles [and roof] of our house, and the ice melted in our cabens and the water dropt downe, which was not so before how great soeuer our fire was; but that night it was colde againe.[2]

The 18 of January it was faire cleare weather with a south-east wind. Then our wood began to consume,[3] and so we agreed to burne some of our sea-coles, and not to stop up the chimney, and then wee should not neede to feare any hurt,[4] which wee did, and found no disease thereby; but we thought it better for vs to keepe the coles and to burne our wood more sparingly, for that the coles would serue vs better when we should saile home in our open scute.[5].

The 19 of January it was faire weather, with a north wind. And then our bread began to diminish, for that some of our barels were not full waight, and so the diuision was lesse, and we were forced to mak our allowance bigger with

[1] *Om ons leden wat te verstercken, met gaen, werpen ende loopen* — to *strengthen* our limbs a little with walking, throwing (the ball), and running.

[2] *Maer des nachts vroort wederom effen cout*—but at night it froze again just as cold (as before).

[3] *Begonde vast te minderen*—began to diminish fast.

[4] *Swymen*—swooning.

[5] *De open schuyten*—the open boats.

that which we had spared before. And then some of vs went abord the ship, wherein there was halfe a barrell of bread, which we thought to spare till the last, and there [quite] secretly each of them tooke a bisket or two out of it.

The 20 of January the ayre was cleare,[1] and the wind south-west. That day we staied in the house and cloue wood to burne, and brake some of our emptie barrels, and cast the iron hoopes vpon the top of the house.

The 21 of January it was faire [clear] weather, with a west wind. At that time taking of foxes began to faile vs, which was a signe that the beares would soone come againe, as not long after we found it to be true; for as long as the beares stay[ed] away the foxes came abroad, and not much before the beares came abroad the foxes were but little seene.

The 22 of January it was faire wether with a west wind. Then we went out againe to cast the bullet,[2] and perceiued that day light began to appeare, whereby some of vs said that the sun would soon appeare vnto vs, but William Barents to the contrary said that it was yet [more than] two weeks too soone.

The 23 of January it was faire calme weather, with a south-west wind. Then foure of vs went to the ship and comforted each other, giuing God thankes that the hardest time of the winter was past, being in good hope that we should liue to talke of those things at home in our owne country; and when we were in the ship we found that the water rose higher and higher in it, and so each of us taking a bisket or two with us, we went home againe.

The 24 of January it was faire cleare weather, with a west wind. Then I and Jacob Hermskercke, and another with vs, went to the sea-side on the south side of Noua Zembla, where, contrary to our expectation, I [the] first [of all][3] saw the

[1] *Wast een betoghen lucht ende stil*—the sky was cloudy and calm.

[2] *De cloot schieten*—to throw the ball.

[3] That is to say, they all three saw it, but Gerrit de Veer saw it first.

edge of the sun ;[1] wherewith we went speedily home againe, to tell William Barents and the rest of our companions that joyfull newes. But William Barents, being a wise and well experienced pilot, would not beleeve it, esteeming it to be about fourteene daies too soone for the sunne to shin in that part of the world;[2] but we earnestly affirmed the contrary and said we had seene the sunne [whereupon divers wagers were laid].

The 20 and 26 of January it was misty and close[3] weather, so y^t^ we could not see anything. Then they that layd ye contrary wager w^t^ vs, thought that they had woon ; but vpon the twenty seuen day it was cleare [and bright] weather,and then we [all] saw the sunne in his full rouudnesse aboue the horison, whereby it manifestly appeared that we had seene it vpon the twenty foure day of January. And as we were of diuers opinions touching the same, and that we said it was cleane contrary to the opinions of all olde and newe writers, yea and contrary to the nature and rounduesse both of heauen and earth ; some of vs said, that seeing in long time there had been no day, that it might be that we had ouerslept our selues, whereof we were better assured :[4] but concerning the thing in itselfe, seeing God is wonderfull in all his workes, we wille referre that to his almightie power, and leaue it vnto others to dispute of. But for that no man shall thinke vs to be in doubt thereof, if we should let this passe without discoursing vpon it, therefore we will make some declaration thereof, whereby we may assure our selues that we kept good reckening.

How the sun which they had lost the 4 of Nouember did appere to them again vpon the 24 of January, which was very strange, and contrary to al learned mens opinions.

You must vnderstand, that when we first saw the sunne,

[1] Which had not been visible since the 3rd of November, as is mentioned in page 121.

[2] *Dat de sonne aldaer ende op die hooghde openbaren souden*—that the sun should appear there and in that latitude.

[3] *Disich*—hazy.

[4] *Daer van wy wel anders versekert zijn*—with respect to which we well know the contrary.

it was in the fift degree and 25 minutes of Aquarius,[1] and it should haue staied, according to our first gessing,[2] till it had entred into the sixteenth degree and 27 minutes of Aquarius[3] before he should haue shewed[4] there vnto vs in the high of 76 degrees.

Which we striuing and contending about it amongst our selues, we could not be satisfied, but wondred thereat, and amongst vs were of oppinion that we had mistaken our selues, which neuerthelesse we could [not] be persuaded vnto, for that euery day without faile we noted what had past, and also had vsed our clocke continually, and when that was frosen we vsed our houre-glasse of 12 houres long. Whereupon we argued with our selues in diuers wise, to know how we should finde out that difference, and learne[5] the truth of the time; which to trie we agreed to looke into the Ephemerides made by Josephus Schala,[6] printed in Venice, for the

[1] This makes the date to have been the twenty-*fifth* of January. On the 24th, the sun was only in the fourth degree of Aquarius. And all the details furnished by the author concur in proving, that, in spite of his assertion of extreme precision as to the date, the conjunction of the moon and Jupiter,—and, inferentially, the first appearance of the sun also,—took place on the 25th of January, instead of the 24th, as stated.

On January 25th, at midday, when the sun's longitude was 305° 25′,1, or 5° 25′,1 of Aquarius, its declination was—18° 57′,1: consequently, its centre was 4° 42′,4, and its upper edge 4° 26′,4, below the horizon. The mean refraction at the horizon cannot, however, be estimated at more than 34′,9, or, with an assumed temperature of—8° Fahren., 39′,3; so that the extraordinary and anomalous refraction amounts to no less than 3° 49′.

[2] *Ons eerste gissinghe*—our first calculation.

[3] That is to say, till February 6th. But on that day, the sun's declination being—15° 56′,4, it was 1° 41′ below the horizon in 75° 45′ N. lat., and therefore still invisible there. In lat. 76° it would have been as much as 1° 56′.

In 75° 45′ N. lat. the sun's upper edge would have been properly first visible on February 9th, when the sun was in 10° 29′,2 of Aquarius, or longitude 319° 29′,2; its declination then being—15° 0′,5, with an assumed refraction of half a degree.

[4] Appeared.

[5] "Leave."—*Ph.*

[6] *Josephus Schala.* The title of the work here referred to, as given in

yeeres of our Lord 1589 till A. 1600, and we found therein that vpon the 24 day of January, (when the sunne first appeared vnto vs) that at Venice, the clocke being one in the night time,[1] the moone and Jupiter were in coniunction.[2] Whereupon we sought to knowe when the same coniunction should be ouer or about the house where we then were; and at last we found, y^t^ the 24 day of January was the same day whereon the coniunction aforesaid happened in Venice, at one of the clocke in the night, and with vs in the morning when ye sun was in the east:[3] for we saw manifestly that the two

De Lalande's *Bibliographie Astronomique*, p. 120, is "Josephi Scala, Siculi, Ephemerides ex Tabulis Magini, ab anno 1589 ad annum 1600 continuatæ, una cum introductionibus Ephemeridum Josephi Moletii. Venetiis, 1589, 4to." It is not in the library of the British Museum, nor in that of the Royal Astronomical Society. This is, however, of no moment; as Mr. Vogel, to whose kindness I am indebted for so much valuable assistance, has calculated the time of the conjunction at Venice, and makes it differ only 57 seconds from Scala's computed time.

[1] In the astronomical reckoning of time, the date was certainly January 24th; but, then, "one in the night time" of that day—which would correctly be called January 24 days 13 hours—corresponds with 1 o'clock in the morning of January 25th, in the civil reckoning of time.

[2] January $23^{d}\ 12^{h}$, mean time, Paris, corresponding with midnight between January 23rd and 24th in the civil reckoning of time,—which at Venice would be 20 minutes to 1 o'clock in the morning of January 24th,—the moon's longitude was $19^{\circ}\ 57',_{3}$ and her latitude $+ 2^{\circ}\ 0,_{7}$, while Jupiter's longitude was $32^{\circ}\ 12',_{0}$ and his latitude—$1^{\circ}\ 4',_{6}$; so that there was no conjunction on that day. On the other hand, January $24^{d}\ 12^{h}\ 59^{m}\ 3^{s}$ mean time, Venice, corresponding with 57 seconds to one o'clock in the morning of January 25th, the position of the two planets was as follows:—

Moon.	Longitude	$32^{\circ}\ 17',_{3}$	Latitude	$+ 2^{\circ}\ 58',_{3}$
Jupiter	,,	$32^{\circ}\ 17',_{3}$	,,	$- 1^{\circ}\ 4',_{3}$

that is to say, they were then in conjunction; their position in the heavens being near the star *a* Arietis.

[3] This can only be understood in a general sense, as meaning that it was somewhere about six o'clock in the morning. For at the time of the conjunction, the sun was more than 20° below the horizon; and as the dawn is not perceptible till the sun is about 18° from the horizon, they could not have possessed even this imperfect means of observing its general bearing, without the aid of the anomalous refraction.

planets aforesaid aproached neere vnto each other,[1] vntill such time as the moone and Jupiter stood iust ouer the other,[2] both in the signe of Taurus,[3] and that was at six of the clocke in the morning;[4] at which time the moone and Jupiter were found by our compas to be in coniunction, ouer our house, in the north and by east point, and the south part of the compass was south-south-west, and there we had it right south,[5] the moone being eight daies old; whereby it ap-

[1] *Want wy sagen gestadich op de vorrnoemde twee planeten dat se altemet malcanderen naerderden*—for we looked constantly at the two planets aforesaid, (and saw) that, from time to time, they approached each other. This is very loosely expressed. The author meant to say that they looked from time to time, and saw the two planets constantly approach.

[2] The moon stood 3° 47′,$_7$ above Jupiter. At the time of the conjunction, the declination of the latter planet was + 11° 17′,$_2$; so that in 75° 45′ N. lat. it must have set 37° 20′ west of the northern meridian. And yet it was observed in 11° 15′ west, when in fact it was 2° 44′,$_1$, *below the horizon!* This is very remarkable. For, as is well known, the setting of even the brightest stars is not perceptible. They always vanish before they reach the horizon. The peculiar state of the atmosphere, which at noon of the same day had raised the sun's disc nearly 4°, allowed a star to be observed which had set 1 hour and 48 minutes previously.

[3] The longitude of the conjunction was 32° 17′,$_3$, or 2° 17′,$_3$ of the sign of Taurus, with reference to the old division of the ecliptic; though, owing to the retrogression of the equinoctial points whereby Aries has taken the place of Taurus, the conjunction actually occurred in the former sign, as is stated in note 2 of the preceding page.

[4] Their clock having stopped, and a twelve-hours sand-glass being their only time-keeper, it would be too much to expect precision in their immediate determination of the time of observation. But, fortunately, by placing on record the moon's azimuth at the time of the conjunction, they furnished the means of calculating the true time within very reasonable limits. The result shows that they were rather more than an hour slow, as it wanted 1 minute and 48 seconds of five o'clock.

[5] The moon's bearing by compass being N. by E. (11° 15′ E.), and the variation of the compass 2 points (22° 30′) W., the moon's azimuthal distance from the northern meridian was 11° 15′ W. From this *datum* Mr. Vogel has calculated the time of the observation, and makes it to be January 24^{d} 16^{h} 58^{m} 12^{s} mean time, or 4^{h} 58^{m} 12^{s} after midnight on January 25th. The difference between this time and that of the conjunction at Venice (0^{h} 59^{m} 3^{s} after midnight) is, of course, the

peareth that the sunne and the moone were eight points different,[1] and this was about sixe of the clocke in the morning:[2] this place differeth from Venice fiue houres in longitude, whereby we maye gesse[3] how much we were nearer east[4] then the citie of Venice, which was fiue houres, each houre being 15 degrees, which is in all 75 degrees that we were more easterly then Venice. By all which it is manifestly to be seene that we had not failed in our account, and that also we had found our right longitude by the two planets aforesaid; for the towne of Venice lieth vnder 37 degrees and 25 minutes in longitude, and her declination[5] is 46 degrees and 5 minutes;[6] whereby it followeth that our place of Noua Zembla lieth vnder 112 degrees and 25 minutes in longitude, and the high of the Pole 76 degrees; and so you haue the right longitude and latitude. But from

difference of longitude between the two places; it being $3^h\ 59^m\ 9^s$, or 59° 47′ E. And Venice being 12° 21′ 21″ E. from Greenwich, it results that "the house of safety", at the north-eastern extremity of Novaya Zemlya, is in 72° 8′ long. E. of Greenwich, or 89° 48′ E. of Ferro; its latitude being 75° 45′ N.

As the moon's bearing and the variation of the compass are both given only to the nearest point, there is a *possibility* of error to the extent of half a point, whereby the longitude might vary as much as 5°, or 20 minutes in time. But there is every reason for believing the variation, as stated, to be very nearly correct; or, if in error, it is in defect, which would have the effect of decreasing the eastern longitude.

[1] Apart. Their actual distance from each other was only 87° in longitude.

[2] This is not correct. The moon passed the meridian at $5^h\ 38^m\ 54^s$ after midnight, and the conjunction was observed $40^m\ 42^s$ before that planet came to the meridian. It was, therefore, only $4^h\ 58^m\ 12^s$ A.M. of January 25th.

[3] *Reeckenen*—reckon or calculate. The word "guess" is still used in this sense by the Americans.

[4] *Oosterlijcker*—more easterly. [5] Latitude.

[6] The correct position of Venice is 30° 0′ 58″ E. of Ferro, or 12° 21′ 21″ E. of Greenwich, and 45° 25′ 49″ N. lat. It is curious that the latitude of so well-known a place should have been stated as much as 40′ in error.

the vttermost [east] point of Noua Zembla to ye point of Cape de Tabin,[1] the vtterniost point of Tartaria, where it windeth southward, the longitude differeth 60 degrees.[2] But you must vnderstand that the degrees are not so great as they are vnder the equinoxial line; for right vnder the line a degree is fifteene [60] miles; but when you leaue the line, either northward or southward, then the degrees in longitude do lessen, so that the neerer that a man is to the north or south Pole, so much the degrees are lesse: so that vnder the 76 degrees northward, where wee wintered, the degrees are but 3 miles and $\frac{2}{3}$ parts [14$\frac{2}{3}$ miles],[3] whereby it is to be marked[4] that we had but 60 degrees to saile to the said Cape de Tabin, which is 220 [880] miles, so[5] the said cape lieth in 172 degrees in longitude as it is thought: and being aboue it,[6] it seemeth that we should be in the straight of Anian,[7] where we may saile bouldlie into the south, as the land

[1] *Tot de Cape de Tabijn*—to Cape Taimur. See page 37, note 1.

[2] Cape Taimur being in about 100° E. long., and the Hollanders' wintering quarters in 72° E. long., the difference of longitude is apparently less than 30 degrees. But this is of no importance, as their determination of the position of that cape was merely speculative, there being at that time no data whatever for fixing its correct position; nor is it indeed exactly known even at the present day.

[3] This is substantially correct. The exact measurement is 3·64 [14·66] miles. Under the 76th parallel of latitude a degree contains 13,859·414 toises (du Peru), and at the equator, 57,108·519 toises.—Encke, "Ueber die Dimensionen des Erdkörpers," *Berliner Jahrbuch für* 1852, p. 369.

[4] *Af te meten*—to be calculated.

[5] *So verde*—in so far as; *i. e.*, assuming that.

[6] *Daer boven zijnde*—having passed beyond it.

[7] *De Strate Anian.* The passage between the continents of Asia and America, now known as Behring's Strait, was formerly so called. It was supposed to be in about 60° N. lat., and the northern coast of America was imagined to stretch from thence to Hudson's Strait in a direction nearly east and west. Maldonado is said to have visited the Strait of Anian in 1588. A translation of the narrative of this pretended discovery is given in Barrow's *Chronological History*, Appendix ii, p. 24 *et seq.* See also the *Quarterly Review*, vol. xvi, p. 144 *et seq.*

reacheth. Now what further instructions are to be had to know where we lost the sun[1] vnder ye said 76 degrees upon the fourth of Nouember, and saw it again vpon the 24 of January, I leaue that to be described[2] by such as make profession thereof: it suffiseth vs to haue shewed that it failed vs not to appeare at the ordinary time.[3]

The 25 of January it was darke clowdy weather, the wind westerlie, so that the seeing of the sunne the day before was againe doubted of; and then many wagers were laid, and we still lookt out to see if the sunne appeared. The same day we sawe a beare (which as long as the sunne appeared not vnto vs we sawe not) comming out of the southwest towards our house; but when we shouted at her she came no neerer, but went away againe.

The 26 of Janurie it was faire cleere weather, but in the horrison there hung a white or darke cloude,[4] whereby we could not see the sun; whereupon the rest of our companions thought that we had mistaken our selues upon the 24 day, and that the sunne appeared not vnto vs, and mocked vs; but we were resolute in our former affirmation that we had seene the sunne, but not in the full roundnesse. That euening the sicke man that was amongst vs was very weake, and felt himselfe to be extreame sick, for he had laine long time,[5] and we comforted him as well as we might, and gaue him the best admonition y^t^ we could,[6] but he died not long after midnight.

The 27 of Januarie it was faire cleere weather, with a

[1] *Wat nu dan belanght dat men verstaen sal van tghene verhaelt is, dat wy de sonne...verloren*—Now, as regards the understanding of what has been related as to our having lost the sun, etc.

[2] *Disputiren*—discussed.

[3] *Dattet ons in den tijdt niet ghemisten heeft*—that we were not mistaken with respect to the time.

[4] *Een banck oft donckeren wolck*—a fog-bank or a dark cloud.

[5] *Een langh suer legher ghehabt*—long lain seriously ill.

[6] *Seyden hem wat goets voor*—spoke kindly to him.

south-west winde: then in the morning we digd a hole in the snowe, hard by the house, but it was still so extreame cold that we could not stay long at worke, and so we digd by turnes euery man a litle while, and then went to the fire, and an other went and supplyed his place, till at last we digd seauen foote depth, where we went to burie the dead man; after that, when we had read certaine chapters and sung some psalmes,[1] we all went out and buried the man; which done, we went in and brake our fasts.[2] And while we were at meate, and discoursed amongst our selues touching the great quantitie of snowe that continually fell in that place, wee said that if it fell out that our house should be closed vp againe with snowe, we would find the meanes to climbe out at the chimney; whereupon our master[3] went to trie if he could clime vp through the chimney and so get out, and while he was climbing one of our men went forth of the doore to see if the master were out or not, who, standing vpon the snowe, sawe the sunne, and called vs all out, wherewith we all went forth and saw the sunne in his full roundnesse a litle aboue the horrison,[4] and then it was without all doubt that we had seene the sunne vpon the 24 of Januarie, which made vs all glad, and we gaue God hearty thankes for his grace shewed vnto us, that that glorious light appeared vnto vs againe.

The 28 of January it was faire [clear] weather, with a west wind; then we went out many tymes to exercise our selues, by going, running, casting of the ball (for then we

[1] *Daer nae deden wy een maniere van een lijck-predikinghe met lesen ende psalmen te singhen*—after that, we made a sort of funeral discourse, read prayers and sang psalms.

[2] *Aten de vroo cost*—ate the funeral meal. [3] Skipper.

[4] The refraction must have continued to be about as great as it was on January 25th. For, though in the interval the sun's declination had increased 46′.6, yet they now saw it in its "full roundness", which is equal to about 32′, and also "a little above the horizon", for which the remaining 15′ can hardly be too large an allowance.

might see a good way from vs), and to refresh our ioynts,[1] for we had long time sitten dull,[2] whereby many of vs were very loase.[3]

The 29 of January it was foule weather, with great store of snow, the wind north-west, whereby the house was closed vp againe with snow.

The 30 of January it was darke weather, with an east-wind, and we made a hole through the doore, but we shoueled not the snow very farre from the portaile,[4] for that as soone as we saw what weather it was, we had no desire to goe abroad.

The 31 of January it was faire calme weather, with an east-wind; then we made the doore cleane, and shoueled away the snow, and threw it vpon the house, and went out and saw[5] the sunne shine cleare, which comforted vs; meane time we saw a beare, that came towards our house, but we went softly in and watcht for her till she came neerer, and as soone she was hard by we shot at her, but she ran away againe.

[1] *Om ons leden wat radder te maecken*—to make our joints somewhat more supple.

[2] *Verkreupelt geseten*—sitten without motion.

[3] *Daer deur datter veel gebreck van den scheurbuijck ghecreghen hadden*—whereby several had fallen sick of the scurvy.

The derivation of the term "scurvy"—*schärbuk*, Low German; *scharbock*, High German; *skörbjugg*, Swedish; *scorbutus*, modern Latin,—is variously attempted to be explained. See Adelung, *Hochdeutsches Wörterbuch;* Mason Good, *Study of Medicine*, vol. ii, p. 870; Lind, *Treatise on the Scurvy*, 3rd Edit., p. 283. The last-named writer says:—"Most authors have deduced the term from the Saxon word *schorbok*, a griping or tearing of the belly [properly *scheuren*, 'to scour', and *bauch*, 'belly']; which is by no means so usual a symptom of this disease; though, from a mistake in the etymology of the name, it has been accounted so by those authors." It is in this sense that the expression has been understood by the English translator.

[4] *Het portael*—the entrance porch.

[5] Phillip has here inserted the word "not", which is not in the original, and is besides inconsistent.

The 1 of February, being Candlemas eve, it was boisterous weather with a great storme and good store of snow, whereby the house was closed vp againe with snow, and we were constrained to stay within dores; the wind then being north-west.

The 2 of February it was [still the same] foule weather, and as then the sun had not rid vs of all the foule weather, whereby we were some what discomforted, for that being in good hope of better weather we had not made so great prouision of wood as wee did before.

The 3 of February it was faire weather with an east winde, but very misty, whereby we could not see the sun, which made vs somewhat melancholy to see so great a miste, and rather more then we had had in the winter time; and then we digd our doore open againe and fetcht the wood that lay without about the dore into the house, which we were forced with great paine and labour to dig out of the snow.

The 4 of February it was [again] foule weather with great store of snow, the wind being south-west, and then we were close up again with snow; but then we tooke not so much paines as we did before to dig open the doore, but when we had occasion to goe out we clome[1] out at the chimney and eased our selues, and went in againe the same way.

The 5 of February it was still foule weather, the wind being east with great store of snow, whereby we were shut vp againe into the house and had no other way to get out but by the chimney, and those that could not clime out were faine to helpe themselues within as well as they could.

The 6 of February it was still foule stormie weather with store of snow, and we still went out at the chimney, and troubled not ovr selues with the doore, for some of vs made it an easie matter to clime out at the chimney.

The 7 of February it was still foule weather with much snow and a south-west wind, and we thereby forced to

[1] Climbed.

keepe the house, which griued[1] vs more than when the sun shined not, for that hauing seen it and felt the heat thereof, yet we were forced not to inioy[2] it.

The 8 of February it began to be fairer weather, [the sky being bright and clear, and] the wind being south-west; then we saw the sun rise south south-east and went downe south south-west;[3] [well understood] by ye compas that we had made of lead and placed to the right meridian of that place, but by our common compas according[4] it differed two points.

The 9 of February it was faire cleare weather, the wind south-west, but as then we could not see the sunne, because it was close weather in the south, where the sunne should goe downe.[5]

The 10 of February it was faire cleare weather [and calm], so that we could not tell where the wind blew, and then we began to feele some heat of the sunne; but in the euening it began to blow somewhat cold[6] out of the west.

The 11 of February it was faire weather, the wind south; y^t^ day about noone there came a beare towards our house, and we watcht her with our muskets, but she came not so neere that wee could reach her. The same night we heard some foxes stirring, which since the beares began to come abroad againe we had [not] much seen.

The 12 of February it was cleare weather and very calme, the wind south-west. Then we made our traps [and springes] cleane againe; meane-time there came a great beare towards our house, which made vs all goe in, and we leauelled at her with our muskets, and as she came right before our dore we shot her into the breast clean through the heart, the bullet

[1] Grieved. [2] Enjoy.

[3] The sun ought properly not to have been visible till the following day. See page 145, note 3.

[4] That is to say, according to our common compass.

[5] *Opgaen moest*—should *rise* or appear.

[6] *Begont een weynich te coelen*—a little breeze sprang up.

passing through her body and went out againe at her tayle, and was as flat as a counter[1] [that has been beaten out with a hammer]. The beare feeling the blow, lept backwards, and ran twenty or thirty foote from the house, and there lay downe, wherewith we lept all out of the house and ran to her, and found her stil aliue; and when she saw vs she reard vp her head, as if she would gladly haue doone vs some mischefe;[2] but we trusted her not, for that we had tryed her strength sufficiently before, and therefore we shot her[3] twice into the body againe, and therewith she dyed. Then we ript vp her belly, and taking out her guts, drew her home to the house, where we flead her and tooke at least one hundred pound of fat out of her belly, which we molt[4] and burnt in our lampe. This grease did vs great good seruice, for by that meanes we still kept a lampe burning all night long, which before we could not doe for want of grease; and [further] euery man had meanes to burne a lamp in his caban for such necessaries as he had to doe. The beares skin was nine foote long and 7 foote broad.

The 13 of February it was faire cleare weather with a hard west wind, at which time we had more light in our house by burning of lamps, whereby we had meanes to passe the time away by reading and other exercises, which before (when we could not distinguish day from night by reason of the darknesse, and had not lamps continually burning) we could not doe.

The 14th of February it was faire cleere weather with a hard west wind before noone, but after noone it was still weather. Then fiue of vs went to the ship to see how it laie, and fouud the water to encrease in it, but not much.

[1] *Een copere duijt*—a copper doit. This was formerly the smallest Dutch coin, of the value of about half a farthing. It no longer exists under the present decimal system.

[2] *Al oft hy sien wilde wiet hem gedaen hadde*—as if she wished to see who had done it to her.

[3] "Their."—*Ph.*

[4] Melted.

The 15 of February it was foule weather, with a great storme out of the south-west, with great store of snowe, whereby the house was closed vp againe. That night the foxes came to deuoure the dead body of the beare, whereby we were in great feare that all the beares thereabouts would come theather,[1] and therefore we agreed, as soone as we could, to get out of the house, to bury the dead beare deepe vnder the snowe.

The 16 of February it was still foule weather, with great store of snow and a south-west wind. That day was Shroue Twesday;[2] then wee made our selues some what merry in our great griefe and trouble, and euery one of vs dranke a draught of wine in remembrance that winter began to weare away, and faire weather[3] to aproache.

The 17 of February it was still foule weather and a darke sky, the wind south. Then we opened our dore againe and swept away the snow, and then we thrue[4] the dead beare into the hoale where we had digd out some wood, and stopt it vp, that the beares by smelling it should not come thither to trouble vs, and we set vp our springs[5] againe to take foxes; and the same day fiue of us went to the ship to see how it laie, which we found all after one sort;[6] there we found foote-steps of many beares, as though they had taken it vp for their lodging when we had forsaken it.

The 18 of February it was foule weather with much snow and very cold, the wind being south-west; and in the night

[1] Thither.

[2] *Vastelavont*, properly *Vastenavond*; formerly called in this country also, Fastern's or Fasten's Even. The "Fasting*ham* Tuiesday," and "Fastyng*onge* Tuesday," cited in Brand's *Observations on Popular Antiquities*, vol. i, p. 58, from Langley's *Polidore Vergile*, fol. 103, and Blomefield's *Norfolk*, vol. ii, p. 111, respectively, seem to be merely corruptions of this expression.

[3] *De vrolijcke tijt*—the *merry* time of year; the spring.

[4] Threw, cast.

[5] Springes or traps.

[6] In the same state as before.

time, as we burnt lampes and some of our men laie [late] awake, we heard beasts runne vpon the roofe of our house, which by reason of the snowe made the noise of their feete sound more than otherwise it would haue done, the snow was so hard [and cracked so much that it gave a great sound], whereby we thought they had beene beares; but when it was day we sawe no footing but of foxes, and we thought they had beene beares, for the night, which of it selfe is solitarie and fearefull, made that which was doubtfull to be more doubtfull and worse feared.[1]

The 19 of February it was faire cleere weather with a south-west wind. Then we tooke the hight of the sunne, which in long time before we could not doe because the horizon was not cleere, as also for that it mounted not so high nor gaue not so much shadowe as we were to haue[2] in our astrolabium, and therefore we made an instrument that was halfe round, at the one end[3] hauing 90 degrees marked thereon, whereon we hung a third[4] with a plumet of lead, as the water compasses[5] haue, and therewith we tooke the hight of the sunne when it was at the highest and found that it was three degrees eleuated abouc the horizon, his declination eleuenth degrees and sixteene minutes, which beeing added to the height aforesaid made 14 degrees and 16 minutes, which substracted from 90 degrees, there rested 75 degrees and 44 minutes for the higth of the Pole; but the aforesaid three degrees of higth being taken at the lowest side of the sunne, the 16 minutes might well be added to the higth of the Pole, and so it was just 76 degrees, as we had measured it before.[6]

[1] *Tghene dat eyselijck scheen noch eyselijcker*—that which was frightful appeared more frightful.

[2] *Behoefden*—required.

[3] *Op d'eene helft*—on the one half.

[4] Thread.

[5] *Waterpassen*—levels, such as are used by builders.

[6] We have here a remarkable instance of what might be called "cooking", were it not that everything is done in perfect good faith, and that

The 20 of February it was foule weather with great store of snow, the wind south-west; whereby we were shut vp againe in the house, as we had been often times before.

The 21 of February it was still foule weather, the wind north-west and great store of snow, which made vs greiue more then it did before, for we had no more wood, and so were forced to breake of[1] some peeces of wood in the house, and to gather vp some that lay troden vnder feet, which had not bin cast out of the way, whereby for that day and the next night we holp[2] our selues indifferent well.

The 22 of February it was clere faire weather with a

the means are afforded us of rectifying the error into which the observer fell through the desire to establish his preconceived idea, founded on the supposed results of his observations of December 14th and January 12th (See pages 131 and 140), that the latitude of the place of observation was to the north of 76°.

It is quite true that, as the sun's lower edge was observed, its semi-diameter has to be added. But the effect of this is to increase, not the height of the Pole, but its complement; which, adopting the observer's own figures, would be 14° 16′ + 16′ = 14° 32′, so that the height of the Pole would be only 75° 28′. There is, however, another correction to be made, namely, for refraction, of which at that early period no account was taken; and this being as much as 15′,1, the discrepancy is thereby so much reduced. The correct calculation of the observation will therefore be as follows:—

Sun's lower edge . .	3°	0′
,, semi-diameter .		16
	3	16
Refraction . . .		15,1
True altitude of sun's centre	3	0,9
Sun's declination .	— 11	15
Complement of height of Pole	14	15,9
Latitude . . .	75°	44,1

Which differs only 1′,5 from the mean of the two observations of the 14th December and 12th January.

[1] Off. [2] Helped.

south-west wind. Then we made ready a slead to fetch more wood, for need compelled vs thereunto; for, as they say, hunger driueth the wolfe out of his den.[1] And eleuen of vs went together, all well appointed with our armes; but coming to the place where wee should haue the wood, we could not come by it by reason it laie so deepe vnder the snow, whereby of necessitie we were compelled to goe further, where with great labour and trouble we got some; but as we returned backe againe therewith, it was so sore labour vnto vs that we were almost out of comfort, for that by reason of the long cold and trouble that we had indured, we were become so weake and feeble that we had little strength, and we began to be in doubt that we should not recover our strengths againe[2] and should not be able to fetch any more wood, and so we should haue died with cold; but the present necessitie and the hope we had of better weather increased our forces, and made vs doe more then our strengthes afforded. And when we came neere to our house, we saw much open water in the sea, which in long time we had not seene, which also put vs in good comfort that things would be better.

The 23 of February it was calme and faire weather, with a good aire,[4] the wind south-west, and then we tooke two foxes, that were as good to vs as venison.

The 24[5] of February it was still weather, and a close aire,[6] the wind south-west. Then we drest our springes [and traps] in good sort for the foxes, but tooke none.

[1] *Vytet wout*—out of *the wood*. The French say, "la faim chasse le loup hors du bois"; and in several other languages it is the same. In English the corresponding expression is, "hunger will break through stone walls." See *National Proverbs, etc.*, by Caroline Ward, p. 62.

[2] "Cod."—*Ph.*

[3] *Ons de cracht begheven soude*—we should *lose* our strength.

[4] *Met een betoghen lucht*—with a cloudy sky.

[5] "25."—*Ph.*

[6] *Donckere lucht*—a dark sky.

The 25 of February it was foule weather againe and much snow, with a north wind, whereby we were closed vp with snow againe, and could not get out of our house.

The 26 of February it was darke weather, with a south-west wind, but very calme: and then we opened our dore againe and exercised our selues with going and running and to make our ioints supple, which were almost clinged together.[1]

The 27 of February it was calme weather, with a south wind, but very cold. Then our wood began to lessen, which put vs in no small discomfort to remember what trouble we had to drawe the last slead-full home, and we must doe the like againe if we would not die with cold.

The 28 of February it was still weather with a south-west wind. Then ten of vs went and fetcht an other slead-full of wood, with no lesse paine and labor then we did before; for one of our companions could not helpe vs, because that the first ioint of one of his great toes was frozen of, and so he could doe nothing.

The first of March it was faire still weather, the wind west but very cold, and we were forced to spare our wood, because it was so great labor for vs to fetch it; so that when it was day we exercised our selues as much as we might, with running, going and leaping; and to them that laie in their cabins[2] we gaue hote[3] stones to warme them, and towards night we made a good fire, which we were forced to indure.[4]

The 2 of Marche it was cold cleere weather, with a west wind. The same day we tooke the higth of the sunne, and found that it was eleuated aboue the horizon sixe degrees and 48 minutes, and his declination was 7 degrees and 12

[1] *Verclemt*—benumbed.

[2] *In de koy*—a-bed.

[3] Hot.

[4] *Daer my ons mede lyden moesten*—wherewith we were forced to be satisfied.

minutes, which[1] substracted from 90 degrees, resteth 76 degrees for the higth of the Pole.[2]

The 3 of March it was faire weather [and calm], with a [south-] west wind; at which time our sickemen were somewhat better and sat vpright in their cabins to doe some thing to passe the time awaie, but after they found[3] that they were too ready to stirre before their times.

The 4 of March it was faire weather with a west wind. The same day there came a beare to our house, whom we watcht with our peeces as we did before, and shot at her and hit her, but she run away. At that time fiue of us went to our ship, where we found that the beares had made worke, and had opened our cookes cubberd,[4] that was couered oner with snow, thinking to find some thing in it, and had drawne it [a good way] out of the ship, where we found it.

The 5 of March it was foule weather againe, with a south-west wind: and as in the euening we had digd open our dore and went out, when the weather began to break vp,[5] we saw much open water in the sea, more then before which put vs in good comfort that in the end we should get away from thence.

The 6 of March it was foule weather, with a great storme out of the south-west and much snow. The same day some of vs climbed out of the chimney, and perceaued that in the sea and about the land there was much open water, but the ship lay fast still.

[1] Namely, the sum of the sun's elevation and southern declination, being fourteen degrees.

[2] With $7'{,}5$ for refraction, and—$7°\ 10'{,}8$ for the sun's declination, the above observation gives $76°\ 8'{,}7$ for the height of the Pole. If no allowance was made at the time for the sun's semi-diameter, 16′ will have to be deducted, which will make the true latitude to be $75°\ 52'{,}7$.

[3] *Twelck haer naemaels niet ten besten verghingh*—which did them no good afterwards.

[4] *Het cocx luijck*—the cook's locker.

[5] *Wat ghebetert was*—was somewhat better.

The 7 of March it was still foule weather and as great a wind, so that we were shut vp in our house, and they that would goe out must clime vp through the chimney, which was a common thing with vs, and still we sawe more open water in the sea and about the land, whereby we were in doubt[1] that the ship, in that foule weather and driuing of the ice, would be loose[2] while we were shut vp in our house, and we should haue no meanes to helpe it.

The 8 of Marche it was still foule weather, with a south-west storme and great store of snow, whereby we could see no ice north-east nor round about in the sea, whereby we were of opinion that north-east from vs there was a great sea.[3]

The 9 of March it was foule weather, but not so foule as the [two] day[s] before, and lesse snow; and then we could see further from vs and perceiue that the water was open in the north-east, but not from vs towards Tartaria, for there we could still see ice in the Tartarian Sea, otherwise called the Ice Sea, so that we were of opinion that there it was not very wide; for, when it was cleere weather, we thought many times that we saw the land, and showed it vnto our companions, south and [south] south-east from our house, like a hilly land, as land commonly showeth it selfe when we see it [from afar off].[4]

[1] *Beducht*—afraid.

[2] The words "for as then the ice drave" are introduced here unnecessarily by Phillip.

[3] *Een ruyme zee moeste zijn*—there must be an *open* sea.

[4] There is little doubt of their having actually seen the country round the estuaries of the rivers Obi and Yenisei. Lütke says (p. 42) that "the distance of the two countries from one another is not known exactly, but there is reason for believing it to be less than 120 Italian miles. That the Hollanders really saw Siberia, and not (as some imagine) the Island of Maksimok, is corroborated by the tradition, which is mentioned even by Witsen (pp. 762, 897, 922), that at times Novaya Zemlya is, in like manner, seen from the Siberian coast.'

The 10 of March it was cleere weather, the wind north. Then we made our house cleane, and digd our selues out and came forth; at which time we saw [quite] an open sea, whereupon we said vnto each other that if the ship were loose we might venture to saile awaie, for we were not of opinion to doe it with our scutes,[1] considering the great cold that we found there. Towards euening, nine of vs went to the ship with a slead to fetch wood, when al our wood was burnt; and found the ship in the same order that it laie, and fast in the ice.

The 11 of March it was cold, but faire sunne-shine weather, the wind north-east; then we tooke the higth of the sunne with our astrolabium, and found it to be eleuated aboue the horizon ten degrees and 19 minutes, his declination was three degrees 41 minutes, which being added to the higth aforesaid, made 14 degrees, which substracted from 90 degrees, there resteth 76 degrees for the higth of the Pole.[2] Then twelue of vs went to the place where we vsed to goe, to fetch a slead of wood, but still we had more paine and labour therewith, because we were weaker; and when we came home with it and were very weary, we praid the master[3] to giue either of vs a draught of wine, which he did, wherewith we were somewhat releeued and comforted, and after that were the willinger[4] to labour, which was vnsupportable for vs if mere extremitie had not compelled vs thereunto, saying often times one vnto the other, that if the wood were to be bought for mony, we would giue all our earnings or wages for it.

The 12 of March it was foule weather, y^e^ wind north-east; then the ice came mightily driuing in, which [by] the south-

[1] Boats.

[2] Here, as before, the correct result will be (refraction $5'{,}_1$; declination—$3°\ 41'{,}_6$) $76°\ 4'{,}_5$; or, deducting 16′ for the sun's semi-diameter, $75°\ 48'{,}_5$

[3] Skipper.

[4] More willing.

west winde had bin driuen out, and it was then as could[1] as it had bin before in the coldest time of winter.

The 13 of March it was still foule weather, with a storme out of the north-east and great store of snow, and the ice mightely driuing in with a great noyse, the flakes rustling against each other fearfull to heare.

The 14 of March it was still foule weather with a great east north-east wind, whereby the sea was [again] as close[2] as it had bin before, and it was extreame cold, whereby our sicke men were very ill,[3] who when it was faire weather were stirring too soone.[4]

The 15 of March it was faire weather, the wind north. That day we opened our dore to goe out, but the cold rather increased then diminished, and was bitterer then before it had bin.

The 16 of March it was faire cleare weather, but extreame cold with a north wind, which put vs to great extremity, for that we had almost taken our leaues of the cold, and then it began to come againe.

The 17 of March it was faire cleare weather, with a north-wind, but stil very cold, wherby wee were wholy out of comfort to see and feele so great cold, and knew not what to thinke, for it was extreame cold.

The 18 of March it was foule cold weather with good store of snow, the wind north-east, which shut vs vp in our house so that we could not get out.

The 19 of March it was still foule and bitter cold weather, the wind north-east, the ice in the sea cleauing[5] faster and thicker together, with great cracking and a hugh[6] noyse, which we might easily heare in our house, but we delighted not much in hearing thereof.

[1] Cold.
[2] Closed up (with ice).
[3] *Wederom instorteden*—relapsed.
[4] Namely, on the 3rd of the month, as is mentioned in page 161.
[5] *Parste*—pressed.
[6] Huge, immense.

The 20 of March it was foule weather, bitter cold, and a north-east wind, then our wood began [by degrees] to consume,[1] so that we were forced to take counsell together;[2] for without wood we could not liue, and yet we began to be so weake that we could hardly endure the labour to fetch it.

The 21 of March it was faire weather, but still very cold, the wind north. The same day the sunne entred into Aries in the equinoxciall lyne, and at noone we tooke the hight of the sunne and found it to be eleuated 14 degrees aboue the horizon, but for that the sun was in the middle lyne and of the like distance from both the tropiks, there was no declination, neither on the south nor north side; and so the 14 degrees aforesaid being substracted from ninty degrees, there rested 76 degrees for the hight of the Pole.[3] The same

[1] *Op te gaen*—to be used up.

[2] *Also dat goet raedt doen duer was*—so that then good advice was dear. This is a proverbial saying; the meaning of which is, that, as they did not know what to do, good advice would have been very valuable.

[3] If we assume the smaller amount of error to be the more probable, we must regard this observation as having been made on the 20th of March, instead of the 21st. The observer found the sun's altitude to be 14°, believing it to be then on the equinoctial, and therefore without declination. But at mean noon in Novaya Zemlya, the sun's declination on March 20th was — 0° 8′,8, and on March 21st + 0° 14′,9, the sun having crossed the equinoctial between 10 and 11 o'clock of the intervening night. The corrected calculation for *both* days will therefore be as follows:—

	March 20th.	March 21st.
Altitude of the sun .	14° 0′	14° 0′
Refraction . . .	3,8	3,8
	13 56,2	13 56,2
Sun' declination —	8,8	+ 14,9
Complement ϕ	14 5	13 41,3
ϕ	75° 55′	76° 8′,7
Or, deduct. the sun's semi-diam.	75° 36′	75° 52′,7

day we made shooes of felt or rudg,[1] which we drew vpon our feet,[2] for we could not goe in our shooes by reason of the great cold, for the shooes on our feet were as hard as hornes; and then we fetcht a slead-ful of wood home to our house, with sore and extreame labour and with great extremity of cold, which we endured as if March[3] went to bid vs farewell. But[4] our hope and comfort was that the cold could not still continue in that force,[5] but that at length the strength thereof[6] would be broken.

The 22 of March it was cleere still weather, the wind north-east, but very cold; whereupon some of vs were of advice, seeing that the fetching of wood was so toylesome vnto vs, that euery day once we should make a fire of coales.

The 23 of March it was very foule weather, with infernall bitter cold,[7] the wind north-east, so that we were forced to make more fire as we had bin at other times, for then it was as cold as ever it had bin, and it froze very hard in the flore and vpon the wales of our house.[8]

The 24 of March it was a like cold, with great store of snow and a north wind, whereby we were once againe shut vp into the house, and then the coales serued vs well, which before by reason of our bad vsing of them we disliked of.

[1] *Van vilten ofte ruyghe hoeden*—of felt, or rough hats. It is probable that these were sheets of the rough material, which they had for use among the ship's stores.

[2] *Over de coussen aentrocken*—drew on over our stockings.

[3] *Als of de Maert haer foy hadde willen besetten*—as if March (before leaving them) had meant to pay them off—*lit.* to give them their fee.

[4] "For."—*Ph.*

[5] *Dat de conde so fel alse was, niet altijt dueren soude*—that the cold, severe as it was, would not last for ever.

[6] *Haer den neck*—its *neck.*

[7] *Met helle bittere koude*—with a *clear* sharp cold. The author is not open to the reproach of having, in the whole course of his narrative, made use of such an expression as that which the translator has here erroneously attributed to him.

[8] *Aen den solder ende wanden van binnen thuijs*—on the ceiling and walls inside the house.

The 25 of March it was still foule weather, the wind west, the cold still holding as strong as it was, which put vs in much discomfort.

The 26 of March it was faire cleere weather [with a west wind], and very calme; then we digd our selues out of the house againe and went out, and then we fetcht an other slead of wood, for the great cold had made vs burne vp all that we had.

The 27 of March it was faire weather, the wind west and very calme; then the ice began to driue away againe, but the ship lay fast and stird not.

The 28[1] of March it was faire weather, the wind south-west, whereby the ice draue away very fast [and we had much open water]. The same day sixe of vs went abord the ship to see how it lay, and found it still in one sort; but we perceiued that the beares had kept an euil fauoured house therein.[2]

The 29 of March it was faire cleere weather, with a north-east wind; then the ice came driuing in againe. The same day we fetcht another slead of wood, which we were euery day worse alike to doe[3] by reason of our weaknesse.

The 30 of March it was faire cleere weather, with an east wind, wherewith the ice came driving in againe. After noone there came two beares by our house, but they went along to the ship and let vs alone.

The 31 of March it was still faire weather, the wind north-east, wherewith the ice came still more and more driuing in, and made high[4] hilles by sliding one vpon the other.

The 1 of Aprill it blew stil[5] out of the east, with faire weather, but very cold; and then we burnt some of our

[1] "18."—*Ph.*

[2] *Daer in gheweldich huijs ghehouden hadden*—had made great havoc there.

[3] *Dat wy hoe langer hoe qualijcker doen conden*—which we were less and less able to do.

[4] *Gheweldighen*—huge, immense.

[5] *Stijf*—strongly.

coales, for that our wood was too troublesome for vs to fetch.

The 2 of Aprill it was faire weather, the wind north-east and very calme. Then we tooke the higth of the sunne, and found it to eleuated aboue the horizon 18 degrees and 40 minutes, his declination being foure degrees and 40 minutes, which being substracted from the higth aforesaid, there rested 14 degrees, which taken from 90 degrees, the higth of the Pole was 76 degrees.[1]

The 3 of Aprill it was faire cleere weather, with a north-east wind and very calme; then we made a staffe to plaie at colfe,[2] thereby to stretch our jointes, which we sought by all the meanes we could to doe.

The 4 of Aprill it was faire weather, the wind variable. That daie we went all to the ship, and put out [through the hawse] the cable that was made fast to the [bower] anchor, to the end that if the ship chanced to be loose [or to drift] it might hold fast thereby.

The 5 of Aprill it was foule weather with a hard north-east wind, wherewith the ice came mightily in againe and slid in great peeces one vpon the other; and then the ship laie faster then it did before.

[1] On April 2nd at mean noon, Novaya Zemlya, the sun's declination was + 4° 56′,8, which, with the observed height (corrected for refraction = 18° 37′,2), would give 76° 19′,5 as the latitude; or, deducting 16′ for the sun's semi-diameter, 76° 3′,5. It is, however, not unlikely that the observation was made on April 1st, when indeed the sun's declination was + 4° 40′ at mean noon *at Venice*, though at mean noon at the place of observation (about four hours earlier) it was only 4° 33′,6. In this case, the latitude would be 75° 56′,4; or 75° 40′,4, if the sun's lower edge was observed.

[2] *Een colf om daer mede te colven*—literally, "a *colf* to *colve* with." The well-known game of colf or golf derives its name from the hooked stick or *club* (German, *kolbe;* Dutch, *colf* or *kolf)* with which it is played. A detailed description of the game, as played in Holland, is given in Sir John Sinclair's *Statistical Account of Scotland*, vol. xvi, p. 28, *note*. See also Jameson's *Scottish Dict.*, art. GOLF.

The 6 of Aprill it was still foule weather, with a stiffe north-west wind. That night there came a beare to our house, and we did the best we could to shoot at her, but because it was moist weather and the cocke foistie,[1] our peece would not giue fire, wherewith the beare came bouldly toward the house, and came downe the staires[2] close to the dore,[3] seeking to breake into the house; but our master held the dore fast to, and being in great haste and feare, could not barre it with the peece of wood that we vsed thereunto;[4] but the beare seeing that the dore was shut, she went backe againe, and within two houres after she came againe, and went round about and vpon the top of the house, and made such a roaring that it was fearefull to heare, and at last got to the chimney, and made such worke there that we thought she would haue broken it downe, and tore the saile[5] that was made fast about it in many peeces with a great and fearefull noise; but for that it was night we made no resistance against her, because we could not see her. At last she went awaie and left vs.

The 7 of Aprill it was foule weather, the wind south-west. Then we made our muskets ready, thinking the beare would haue come againe, but she came not. Then we went up vpon the house, where we saw what force the beare had vsed to teare away the saile, which was made so fast vnto the chimney.

The 8 of Aprill it was still foule weather, the wind south-west, whereby the ice drane away againe and the sea was open, which put vs in some comfort that we should once get away out of that fearefull place.

[1] *Deur dattet damper weer ende teruijt vochtich was*—because it was damp weather and the *powder* moist.

[2] The *steps* cut in the snow, as is mentioned in page 136.

[3] *Nae de deur vant huijs toe*—*towards* the door of the house.

[4] *Dat boven de deur was*—that was above the door.

[5] The house was covered with a sail, on which was placed shingle from the beach, to keep it weather tight, as is described in page 119.

The 9 of Aprill it was faire cleere weather, but towards euening it was foule weather, the wind south-west, so that stil ye water became opener, whereat we much reioysed, and gaue God thanks that he had saued vs from the aforesaid[1] cold, troublesome, hard, bitter, and vnsupportable winter, hoping that time would giue vs a happy issue.

The 10 of Aprill it was foule weather, with a storme out of the north-east, with great store of snowe; at which time the ice that draue away came in againe and couered all the sea ouer.[2]

The 11 of Aprill it was faire weather, with a great north-east wind, wherewith the ice still draue one peece vpon another and lay in high hilles.

The 12[3] of Aprill it was faire cleere weather, but still it blew hard north-east as it had done two dayes before, so that the ice lay like hilles one upon the other, and then was higher and harder then it had bin before.

The 13 of Aprill it was faire cleere weather with a north wind. The same day we fetcht a slead with wood, and euery man put on his shooes that he had made of felt or rudg,[4] which did vs great pleasure.

The 14 of Aprill it was faire cleare weather with a west wind; then we saw greater hilles of ice round about the ship then euer we had seene before, which was a fearefull thing to behold, and much to be wondred at that the ship was not smitten in pieces.

The 15 of Aprill it was faire calme weather with a north wind; then seauen of vs went aboard the ship, to see in what case it was, and found it to be all in one sort; and as we came backe againe there came a great beare towards vs,

[1] *Voorgaende*—late, previous.

[2] *Vervulde de gantsche zee*—filled the entire sea.

[3] "21st."—*Ph.*

[4] *Van den houden ghemaect hadden*—had made of the hats or felt. See page 166, note 1.

against whom we began to make defence, but she perceauing that, made away from us, and we went to the place from whence she came to see her den,[1] where we found a great hole made in ye ice, about a mans length in depth, the entry thereof being very narrow, and within wide; there we thrust in our pickes[2] to feele if there was any thing within it, but perceauing it was emptie, one of our men crept into it, but not too farre, for it was fearefull to behold. After that we went along by the sea side, and there we saw that in the end of March and the beginning of Aprill the ice was in such wonderfull maner risen and piled vp one vpon the other that it was wonderfull, in such manner as if there had bin whole townes made of ice, with towres and bulwarkes round about them.

The 16 of Aprill it was foule weather, the wind north-west, whereby the ice began some-what to breake.[3]

The 17 of Aprill it was faire cleere weather with a south-west wind; and then seauen of vs went to the ship, and there we saw open water in the sea, and then we went ouer the ice hilles as well as we could to the water, for in six or seauen monthes we had not gone so neare vnto it; and when we got to ye water, there we saw a litle bird swiming therein, but as soone as it espied vs it diued vnder the water, which we tooke for a signe that there was more open water in the sea then there had beene before, and that the time approached that the water would [be] open.

The 18 of Aprill it was faire weather, the wind south-west. Then we tooke the higth of the sunne, and it was eleuated aboue the horizon 25 degrees and 10 minutes, his declination 11 degrees and 12 minutes, which being taken from the higth aforesaid, there rested 13 degrees and 68 minutes, which substracted from 90 degrees, the higth of the Pole

[1] *Om te sien of hy daer eenighe holen hadde*—to see whether she had any holes there.

[2] *Spiesen*—pikes.

[3] *Af te setten*—to go away.

was found to be 75 degrees, 58 minutes.[1] Then eleuen of vs went with a slead to fetch more wood, and brought it to the house. In the night there came an other beare vpon our house, which we hearing, went all out with our armes, but [through the noise we made] the beare ranne away.

The 19 of Aprill it was faire weather with a north wind. That day fiue of vs went into the bath to bathe our selues,[2] which did vs much good and was a great refreshing vnto vs.

The 20 of Aprill it was faire weather with a west wind. The same day five of vs went to the place where we fetcht wood, with a kettle and other furniture[3] vpon a slead, to wash our shirts in that place, because the wood lay ready there, and for that we were to vse much wood to melt the ice, to heate our water and to drie our shirtes, esteming it a lesse labour then to bring the wood home to the house, which was great trouble vnto vs.

The 21 of Aprill it [still] was faire weather with an east wind; and the next day the like weather, but in the euening the wind blewe northerly.

The 23 of Aprill it was faire [clear] weather [with a bright sky] and a [strong] north-east wind; and the next day the like, with an east wind.

The 25 of Aprill it was faire [clear] weather, the wind easterly. The same day there came a beare to our house, and we shoot her into the skin,[4] but she runne awaie, which another beare that was not farre from vs perceauing [she came not nearer to us but] runne away also.

The 26 and 27 of Aprill it was faire weather, but an extreeme great north-east wind.

[1] The declination here given is that of April 19th. The corrected calculation for the 18th, with refraction $2'{,}0$ and declination $+10°\ 50'{,}1$, gives $75°\ 42{,}1$; or $75°\ 26'{,}1$, if the sun's semi-diameter has to be deducted. On April 19th, the declination was $+11°\ 10'{,}1$, whereby the height of the Pole would be $76°\ 2'{,}1$; or, deducting the sun's semi-diameter, $75°\ 46'{,}1$.

[2] *Ende stooften ons*—and stewed ourselves. See page 121, note 8.

[3] *Ghereetschap*—utensils.

[4] *Huijt*—literally "hide", but used in the sense of "body".

The 28 of Aprill it was faire weather with a north wind. Then we tooke the higth of the sunne againe, and found it to be eleuated 28 degrees and 8 minutes, his declination 14 degrees and 8 minutes,[1] which substracted from 90 degrees, there rested 76 degrees for the highth of the Pole.[2]

The 29 of Aprill it was faire weather with a south-west wind. Then we plaid at colfe[3] [and at ball], both to the ship and from thence againe homeward, to exercise our selues.

The 30 of Aprill it was faire weather [with a bright sky], the wind south-west; then in the night wee could see the sunne in the north, when it was in the highest,[4] iust aboue the horizon, so that from that time we saw the sunne both night and day.[5]

The 1 of May it was faire weather with a west wind; then we sod our last flesh,[6] which for a long time we had spared, and it was still very good, and the last morsell tasted as well

[1] There is an omission here in the original. The following words require to be supplied:—"which substracted from the said elevation, there rested 14 degrees."

[2] With the sun's declination + 14° 8′,7, ahd refraction 1′,8, the corrected calculation will give 76° 2′,5; or, deducting 16′ for the sun's semidiameter, 75° 46′,5.

[3] See page 168, note 2.

[4] *Opt hooghste was.* An oversight of the author. He meant to say that the sun was *on the meridian* in the north; where, of course, it must have been at the *lowest*, instead of the highest.

[5] Had the latitude of the place of observation been really more than 76° the sun ought to have been visible above the horizon at midnight on the 28th April, as its declination was then already more than 14°; and as on the 30th April its declination was 14° 55′, it ought to have had its *lower* edge full 39′ above the horizon at the time when at the place of observation it is said to have been visible "just above the horizon". This is without taking into account the refraction, which under ordinary circumstances, would have made its visible altitude about 36′ more. Hence it is quite clear that they were not so far north as 76°.

[6] *Coockten wy onse laetste vleysch*—we cooked the last of our meat (beef).

as the first, and we found no fault therein but onely that it would last no longer.[1]

The 2 of May it was foule weather with a [seuere] storme out of the south-west, whereby the sea was almost cleere of ice, and then we began to speake about[2] getting from thence, for we had kept house long enough there.

The 3 of May it was still foule weather with a south-west wind, whereby the ice began wholy to driue away, but it lay fast about the ship. And when our best meate, as flesh and other things, began to faile vs,[3] which was our greatest sustenance, and that it behooued vs to be somewhat strong, to sustaine the labour that we were to vndergoe when we went from thence, the master shared the rest of the bacon[4] amongst vs, which was a small barrell with salt bacon in pickle,[5] whereof euery one of vs had two ounces a day, which continued for the space of three weekes, and then it was eaten up.[6]

The 4 of May it was indifferent faire weather, ye wind south-west. That day fiue of vs went to the ship, and found

[1] *Maer hadt maer een manghel, dattet niet langher deuren wilde*—only it had but one fault, which was, that it would not last any longer. Whenever a joke is intended by the author,—who, although a serious, matter-of-fact Dutchman, was evidently a bit of a wag,—it is, by some fatality, sure to be spoilt by the translator.

[2] *Te jancken*—to hanker after.

[3] *Ende also de beste spijs, als vleysch ende grutten ende anders, ons ontbrack*—and as our best food, such as beef, barley, and such like, failed us. *Gort* or *grutten*, for porridge, form an important item in the supplies of Dutch seamen. When the Dutch whale-fishery was in a more flourishing state, the sailors of the vessels employed in it used to be saluted by the boys in the streets of Amsterdam with the cry of—*Traan-bak! Stroop in je gort tot Pampus toe.*—"Train-oil Billy! Treacle in your porridge as far as Pampus;" meaning, that after they had passed Pampus (see page 13, note 5), which is only two hours from Amsterdam, they would, during the rest of the voyage, get their porridge without treacle.

[4] *Speck*—pork.

[5] *Een cleijn vaetgien met peeckelspeck*—a small cask of salt pork.

[6] *Doen wast mede op*—then that also was gone.

it lying still as fast in the ice as it did before;[1] for about the midle of March it was but 75 paces from the open water, and then[2] it was 500 paces from the water and inclosed round about with high hilles of ice, which put vs in no small feare how we should bring our scute and our boate through or ouer that way into the water when we went to leaue that place. That night there came [again] a beare to our house, but as soone as she heard vs make a noise she ranne away againe; one of our men that climbed vp in the chimney saw when she ranne away, so that it seemed that as then they were afraid of vs, and durst not be so bold to set vpon vs as they were at the first.

The 5 of May it was faire weather with some snow, the wind east. That euening and at night we saw the sunne, when it was at the lowest, a good way aboue the earth.

The 6 of May it was faire cleere weather with a great south-west wind, whereby we saw the sea open both in the east and in the west, which made our men exceeding glad, longing sore to be gone from thence.

The 7 of May it was foule weather and snew hard, with a north wind, whereby we were closed vp againe in our house, whereupon our men were somewhat disquieted, saying that they thought they should neuer goe from thence,[3] and therefore, said they, it is best for vs as soone as it is open water to be gone from hence.

The 8 of May it was foule weather with great store of snow, the wind west; then some of our men agreed amongst themselues to speake vnto the master,[4] and to tell him that it was more then time for vs to be gone from thence;[5] but they could not agree vpon it who should moue the same vnto

[1] *Meer als te voren*—more than before. [2] *Nu*—now.

[3] *Seghende: dit weer sal hier nimmermeer vergaen*—saying, this weather will never more pass away here.

[4] The skipper, namely, Jacob Heemskerck.

[5] *Van daer te sien comen*—to *see about* getting from thence.

him,[1] because he had said that he would staie[2] vntill the end of June, which was the best of the sommer, to see if the ship would then be loose.

The 9 of May it was faire cleere weather with an indifferent wind out of the north-east; at which time the desire that our men had to be gone from thence still more and more encreased, and then they agreed to speake to William Barents to moue the master to goe from thence, but he held them of with faire words [and quieted them]; and yet it was not done to delay them,[3] but to take the best counsell with reason and good aduise, for he heard all what they could saie.[4]

The 10 of May it was faire weather with a north-west wind; y^t^ night, the sun by our common compas being north north-east and at the lowest, we tooke the higth thereof, and it was eleuated 3 degrees and 45 minutes, his declination was 17 degrees and 45 minuts, from whence taking the higth aforesaid, there rested 14 degrees, which substracted from 90 degrees, there rested 76 degrees for the higth of the Pole.[5]

The 11 of May it was faire weather, the wind south-west, and then[6] it was [quite] open water in the sea, when our men prayed William Barents once againe to moue the maister to make preparation to goe from thence, which he promised to do as soone as conuenient time serued him.

The 12 of May it was foule weather, the wind north-west;

[1] *Maer elck ontsach sich den schipper dat te kennen te gheven* — but each was reluctant to make the skipper acquainted with it.

[2] *Vermidts dat hy hem hadde laten verluyden dat hy begeerde te wachten*—because he had given them to understand that he desired to wait.

[3] *Niet muytischer wyse*—not in a mutinous manner.

[4] *Want zy lieten haer gaerne gheseyghen* — for they let themselves easily be talked over.

[5] The corrected calculation, with declination + 17° 44′,9 and refraction 12′,2, will give 75° 47′,9. If the sun's lower edge was observed, 16′ will, in this instance, have to be *added* to the latitude, which thereby becomes 76° 3′,9.

[6] *Daer deur*—whereby.

and then the water became still opener then it was, which put vs in good comfort.

The 13 of May it was still weather, but it snowed hard with a north[-west] wind.

The 14 of May [it was fine clear weather with a north wind. Then] we fetcht our last slead with fire wood, and stil ware[1] our shooes made of rugde[2] on our feete, wherewith we did our selues much pleasure, and they furthered vs much. At the same time we spake to William Barents againe to moone the maister about going from thence, which he promised he would doe [on the following day].

The 15 of May it was faire weather with a west wind, and it was agreed that all our men should go out to exercise their bodies with running, goeing,[3] playing at colfe[4] and other exercises, thereby to stirre their ioynts and make them nymble. Meane time [William] Barents spake vnto the maister and showed him what the company had said,[5] who made him answeare that they should stay no longer than to the end of that mounth, and that if then the ship could not be loosed, that preparation should be made to goe away with the scute and the boate.[6]

The 16 of May it was faire weather with a west-wind; at which time the company were glad of the answere that the maister had giuen, but they thought the time too long, because they were to haue much time[7] to make the boate and

[1] Wore.

[2] *Van de ruyghe hoetgens*—of the rough hats (felt). See page 166, note 1.

[3] *I.e.*, walking.

[4] *Colven.* See page 168, note 1.

[5] *Sprack Willem Barentzoon den schipper aen wat der ghesellen goeden raedt was*—William Barentsz told the skipper what the crew thought was best (to be done).

[6] *De schuijt ende boek*—the boat and yawl. Heemskerck's first thought, as supercargo, evidently was to save, if possible, the ship and property entrusted to him by the owner; and by waiting till the fine weather came and the sea was open, he hoped to be able to do this.

[7] *Dat men veel tijts behoeven soude*—because much time would be requisite.

the scute ready to put to sea with them, and therefore some of them were of opinion that it would be best for them to sawe the boate[1] in the middle and to make it longer; which opinion, though[2] it was not amisse, neuerthelesse it would be ye worse for vs, for that although it should be so much the better for the sailing, it would be so much the vnfitter to be drawne ouer the ice, which we were forced [afterwards] to doe.

The 17 and 18 of May it was faire cleere weather with a west wind, and then we [almost] began to reconne[3] the daies that were set downe and appointed[4] for vs to make preparation to be gone.

The 19 of May it was faire weather with an east wind; then foure of our men went to the ship or to the sea side, to see what way we should draue the scute into the water.[5]

The 20 of May it was foule weather with a north-east wind, whereby the ice began to come in [strongly] againe; and at noone we spake vnto the maister, and told him that it was time to make preparation to be gon, if he would euer get away from thence;[6] whereunto he made answeare that his owne life was as deere vnto him as any of ours vnto vs, neuerthelesse he willed vs to make haste to prepare our clothes and other things ready and fit for our voiage, and that in the meane time we should patch and amend them, that after it might be no hinderance vnto vs, and that we should stay till the mounth of May was past, and then make ready the scute and the boate and al other things fit and conuenient for our iourney.

[1] *Bock*—yawl; it being the smaller boat of the two.

[2] "Thought"—*Ph.*

[3] Reckon, count.

[4] *Dat den tijt aenquam*—till the time should arrive.

[5] *De schuyten te water soude moghen brenghen*—should be able to get the boats afloat.

[6] *Oft eens tijdt quam dat wy weeh comen mochten*—if the time should ever come when we might get away.

The 21 of May it was faire weather with a north-east wind, so that the ice came driuing in againe, yet we made preparation touching our things that we should weare, that we might not be hindred thereby.

The 22 of May it was faire weather with a north-west wind; and for that we had almost spent all our wood, we brake the portall of our dore[1] downe and burnt it.

The 23 of May it was faire weather with an east wind; then some of [us] went againe to the place where the wood lay, to wash our sheets.[2]

The 24 of May it was faire weather with a south-east wind, whereby there was but little open water.

The 25 of May it was faire weather with an east wind. Then at noone time we tooke the higth of the sunne, that was eleuated aboue the horizon 34 degrees and 46 minutes, his declination 20 degrees and 46 minutes, which taken from the higth aforesaid, there rested 14 degrees, which taken from 90 degrees[3] resteth 76 degrees for the higth of the Pole.[4]

[1] *Den wandt vant portael*—the sides of the porch or entrance.

[2] *Hemden*—shirts.

[3] *Die dan wederom ghetoghen van de ghenomen hoochte*—which then being taken from the observed height. This error in the original text is corrected in the translation.

[4] The declination here given (correctly 20° 46′,5) is that of the 24th May; that of the 25th being 20° 57′,6. The amended calculation for both days will be as follows:—

	May 24th	May 25th.
Observed altitude of sun .	34° 46′,0	34° 46′,0
Refraction . . . . —	1′,4 —	1′,4
	34° 44′,6	34° 44′,6
Sun's declination . . +	20° 46′,5 +	20° 57′,6
Complement ϕ . . .	13° 58′,1	13° 47′,0
ϕ . . .	76° 1′,9	76° 13′,0
Or, allowing for the sun's semi-diameter	75° 45′,9	75° 57′,0

Regarding the several observations of stars as well as of the sun (except

The 26 of May it was faire weather with a great north-east wind, whereby the ice came [drifting] in againe [with great force].

The 27 of May it was foule weather with a great north-east wind, which draue the ice mightely in againe, whereupon the maister, at the motion[1] of the company, willed vs [immediately to begin] to make preparation to be gon.

The 28 of May it was foule weather with a north-west wind; after noone it began to be somewhat better. Then seuen of vs went vnto the ship, and fetcht such things from thence as should serue vs for the furnishing of our scute and our boate, as the old fock sayle[2] to make a sayle[3] for our boate and our scute, and some tackles and other things necessarie for vs.[4]

The 29 of May in the morning it was reasonable fair

those of March 20th, April 2nd and 18th, and May 24th, which are uncertain), as being all equally good, subject only to correction for refraction and amended declination, the result will be 75° 57′,5. Or, assuming that the sun's *lower* edge was observed in every case, but not allowed for (and the observations of the stars leave little room for doubting that such must have been the case), and taking the sun's semi-diameter at 16′, and including also the observations of the two stars, we have 75° 49′,5. In either case the latitude will be rather to the *south* than to the north of the 76th parallel. But, as all the latter observations of the sun were made under an erroneous impression, and evidently with a desire that they should correspond with what was believed to be the truth, the safest plan will be to content ourselves with the observations of the two stars and the *first* observation of the sun on February 19th, the result of which will be:—

γ	Orionis	75°	43′,0
α	Tauri	75°	47′,9
⊙		75°	44′,1
			135

Which gives exactly 75° 45′ as the latitude of the spot.

[1] *Aenstaen*—urgent request.

[2] *Fock*—foresail.

[3] *De seylen*—the sails.

[4] *Eenigh loopende wandt ende trosgens ende anders meer*—some running rigging, ropes, and various other things.

weather with a west wind; then ten of vs went vnto the scute to bring it to the house to dresse it and make it ready to sayle,[1] but [on coming to it] we found it deepe hidden vnder ye snow, and were faine with great paine and labour to dig it out, but when we had gotten it out of the snow, and thought to draw it to the house, we could not doe it, because we were too weake, wherewith we became wholely out of heart, doubting that we should not be able to goe forwarde with our labour; but the maister encouraging vs bad vs striue to do more then we were able, saying that both our liues and our wellfare consisted therein, and that if we could not get the scute from thence and make it ready, then he said we must dwell there as burgers[2] of Noua Zembla, and make our graues in that place. But there wanted no good will in vs, but onely strength, which made vs for that time to leaue of worke and let the scute lye stil, which was no small greefe unto vs and trouble to thinke what were best for vs to doe. But after noone, being thus comfortlesse come home, wee tooke hearts againe, and determined to tourne the boate[3] that lay by the house with her keale vpwards, and [we began] to amend it [and to heighten the gunwales, so] that it might be ye fitter to carry vs ouer the sea, for we made full account y^t^ we had a long troublesom voiage in hand, wherin we might haue many crosses, and wherin we should not be sufficiently prouided for all things necessarie, although we tooke neuer so much care; and while we were busy about our worke, there came a great[4] beare vnto vs, wherewith we went into our house and stood to watch her in our three dores with harquebushes, and one stood in the chimney with a musket. This beare came bold-

[1] *Nae de schuyt ghegaen om die ontrent het huijs te vertimmeren*—went to the boat, in order to repair it near the house.

[2] *Burghers*—burgesses, citizens; that is to say, they must consider Novaya Zemlya as their place of permanent residence.

[3] *De bock*—the yawl.

[4] *Vreeselijcken*—frightful.

lyer[1] vnto vs than euer any had done before, for she came to the neather[2] step yt went to one of our doores, and the man that stood in the doore saw her not because he lookt towards the other doore, but they that stood within saw her and in great feare called to him, wherewith he turned about, and although he was in a maze he shot at her, and the bullet past cleane through her body, whereupon she ran away. Yet it was a fearfull thing to see, for the beare was almost vpon him before he saw her, so that if the peece had failed to giue fire, (as often times they doe) it had cost him his life, and it may be yt the beare would haue gotten into ye house. The beare being gone somewhat from the house, lay downe, wherewith we went all armed [with guns, muskets, and half-pikes] and killed her outright, and when we had ript open her belly we found a peece of a bucke therein, with haire, skin and all,[3] which not long before she had towrne[4] and deuoured.

The 30 of May it was indifferent faire weather, but very cold and close aire,[5] the wind west; then we began [again with all our men that were fit for it] to set our selues to worke about the boate[6] to amend it, the rest staying in the house to make the sailes and all other things ready that were necessarie for vs. But while we were busie working at our boate, there came [again] a beare vnto vs, wherewith we were forced to leaue worke, but she was shot by our men. Then we brake downe the plankes of the rooffe of our house, to amend our boate withall,[7] and so proceeded in our worke as well as we could; for every man was willing to labour, for we had sore longed for it, and did more then we were able to doe.

The 31 of May it was faire weather, but somewhat colder

[1] More boldly. [2] Nether, lower.

[3] *Stucken van robben met huijt ende hayr*—pieces of *seals*, with the skin and hair. [4] Torn.

[5] *Niet seer kout maer doncker*—*not* very cold, but dark.

[6] *Bock*—yawl.

[7] *Om de bock daer mede op te hoyen*—wherewith to raise the gunwale of our yawl.

then before, the wind being south-west, whereby the ice draue away, and we wrought hard about our boate; but when [we] were in the chiefest part of worke, there came an other beare, as if they had smelt that we would be gone, and that therefore they desired to tast a peece of some of vs,[1] for that was the third day, one after the other, that they set so fiercely vpon vs; so that we were forced to leaue our worke and goe into the house, and she followed vs, but we stood with our peeces to watch her, and shot three peeces at her, two from our dores and one out of the chimney, which all three hit her, whereby she fared as the dogge did with the pudding;[2] but her death did vs more hurt then her life, for after we ript her belly we drest her liuer and eate it, which in the taste liked vs well, but it made vs all sicke, specially three that were exceeding sicke, and we verily thought that we should haue lost them, for all their skins came of from the foote to the head, but yet they recouered againe, for the which we gave God heartie thankes, for if as then we had lost these three men, it was a hundred to one[3] that we should neuer haue gotten from thence, because we should haue had too few men to draw and lift at our neede.

[June, 1597.]

The 1 of June it was faire [beautiful] weather, and then our men were for the most part sicke with eating the liuer of a[4] beare, as it is said before, whereby that day there was nothing done about the boate; and then there hung a pot still ouer the fire with some of the liuer in it, but the master tooke it and cast it out of the dore, for we had enough of the sawce thereof.[5] That day foure of our men

[1] *Van ons eerst de smaeck begeerden te hebben*—they desired first to have a taste of us.

[2] *Also dat hem dit bequam als de hont de worst*—so that it agreed with her as the sausage did with the dog. This homely Dutch proverb has already been explained in page 106, note 5.

[3] *Mischien*—perhaps.

[4] *Den*—the.

[5] *Genoech van die sause*—enough of *that* sauce.

that were the best in health went to the ship, to see if there was any thing in it that would serue vs in our voiage, and there found a barrell with geep,[1] which we shared amongst our men, whereof every one had two, and it did vs great pleasure.

The 2 of June, in the morning, it was faire weather with a south-west wind; and then sixe of vs went to see and finde out the best way for vs to bring our boate and our scute to the water side, for as then the ice laie so high and so thicke one vpon the other, that it seemed [almost] unpossible to draw or get our boate and the scute ouer the ice, and the shortest and best way that we could find was straight from the ship to the water side,[2] although it was full of hilles and altogether vneuen and would be great labour and trouble vnto vs, but because of the shortnesse we esteemed it to be the best way for vs.

The 3 of June, in the morning, it was faire cleare [sunny] weather, the wind west; and then we were [again become] somewhat [stronger and] better [of our sickness], and tooke great paines with the boate,[3] that at last we got it ready after we had wrought sixe daies vpon it. About euening it began to blow hard, and therewith the water was very open, which put vs in good comfort that our deliuerance would soone follow, and that we should once get out of that desolate and fearefulle place.

The 4 of June it was faire cleere [sunny] weather and

[1] *Geep.* A well known fish (*Belone vulgaris*, Cuvier), which is called in English by a variety of trivial names:—gar-fish, gane-fish, sea-pike, mackerel-guide, mackerel-guard, green-bone, horn-fish, horn-back, horn-beak, horn-bill, gore-bill, long-nose, sea-needle. Considerable quantities are brought to the London markets in the spring from the Kent and Sussex coasts. In Holland they are now only used as bait for other fish. See Yarrell, *History of British Fishes*, vol. i, p. 393.

[2] *Nae't open water toe*—towards the open water.

[3] *Ende arbeyden met alle macht aen den boek*—and worked with all our might on the yawl.

indifferent warme ;[1] and about ye south-east sun [½ p. 7 A.M.] eleuen of vs went to our scute [on the beach] where it then lay, and drew it to[wards] the ship, at which time the labour seemed lighter vnto vs then it did before when we tooke it in hand and were forced to leaue it off againe. The reason thereof was the opinion that we had that the snow as then lay harder vpon the ground and so was become stronger, and it may be that our courages were better to see that the time gaue vs open water, and that our hope was that we should get from thence; and so three of our men stayd by the scute to build her to our mindes, and for that it was a herring scute, which are made narrow behind, therefore they sawed it [a little] of behinde, and made it a broad stearne and better to broke the seas ;[2] they built it also somewhat higher, and drest it vp as well they could.[3] The rest of our men were busy in the house to make all other things ready for our voiage, and that day drew two sleads with victuals and other goods [from the house] vnto the ship, that lay about halfe way betweene the house and the open water, [so] that after they might haue so much ye shorter way to carry the goods vnto ye water side, when we should goe away. At which time al the labour and paines that we tooke seemed light and easie vnto vs, because of the hope that we had to get out of that wild, desart, irkesome, fearefull, and cold country.

The 5 of June it was foule [uncomfortable] weather with great store of haile and snow, the wind west, which made an open water; but as then we could doe nothing without the house, but within we made all things ready, as sailes, oares,

[1] *Niet seer koud*—not very cold.

[2] *Maeckteuse met een spiegel, om also bequamer te zijn inde zee te ghebruijcken*—made it with a square stern, in order that it might be a better sea-boat.

[3] *Ende maeckteuse also vaerdich opt bequaemste dat men mocht*—and so got it ready in the fittest manner in their power.

mastes, sprit, rother, sword,[1] and all other necessarie things.

The 6 of June in the morning it was faire weather, the wind north-east. Then we went with our carpenters to the ship to build vp our scute, and carried two sleades-full of goods into the ship, both victualles and marchandise, with other things, which we ment to take with vs. After that there rose very foul weather in the south-west, with snow, haile, and [also] raine, which we in long time had not had, whereby the carpenters were forced to leaue their worke and goe home to the house with vs, where also we could not be drie, [for] because we had taken of the deales [from the house], therewith to amend our boate and our scute; there laie but a saile ouer it, which would not hold out the water, and the way that laie full of snow began to be soft, so that we left of our shoes made of rugge and felt[2], and [again] put on our leather shoes.

The 7 of June there blew a great north-east wind, whereby we saw the ice come driuing in againe; but the sunne being south-east [½ p. 7 A.M.] it was faire weather againe, and then the carpenters went to the scute againe to make an end of their worke, and we packed the marchants goods that we ment to take with vs [the best and most valuable goods], and made defences for our selues of the said packes to saue vs from the sea[3] [as we had to carry them] in the open scute.

The 8 of June it was faire weather, and we drew the wares to the ship which we had packed and made ready; and the car-

[1] *Swaert* (now written *zwaarden*) lee-boards or whiskers. These are the boards still seen on the sides of Dutch flat-bottomed vessels, which serve to keep them steady, and to prevent them from drifting to leeward, when sailing with a side wind, or lying to.

[2] *Van hoeden.* See page 166, note 1.

[3] *Ende maeckten daer presentinghen over om van een zee waters beschermt te zijn*—and placed tarpaulings over them, to protect *them* (the goods) from the sea-water.

penters made ready the scute, so that the same euening it was almost done. The same day all our men went to draw our boate[1] to the ship, and made ropes to draw withall, such as we vse to draw with in scutes,[2] which we cast ouer our shoulders and held fast with all our hands,[3] and so drew both with our hands and our shoulders, which gaue vs more force, and specially the desire and great pleasure we tooke to worke at that time made vs stronger, so that we did more then then at other times we should haue done, for that good will on the one side and hope on the other side encreased our strenght.

The 9 of June it was faire weather with variable windes. Then we washt our shirts and all our linnen against we should be ready to saile away, and the carpenters were still busie to make an end of the boate and the scute.[4]

The 10 of June we carried foure sleades of goods into the ship, the wind then being variable; and at euening it was northerly, and we were busie in the house to make all things ready. The wine that was left we put into litle vessels,[5] that so we might deuide it into both our vessels,[6] and that as we were inclosed by the ice,[7] (which we well knew would happen vnto vs) we might the easelier cast the goods vpon the ice, both out and into the scutes, as time and place serued vs.

The 11 of June it was foule weather and it blew hard north north-west, so that all day we could doe nothing, and we were in great feare least the storme would carry the ice and the ship both away together (which might well haue come to passe); then we should haue beene in greater mise-

[1] *Bock*—yawl. [2] *Sleden*—sledges.

[3] *Dat men noch offenwel onse handen daer aen mochten slaen*—so that we could likewise grasp them with our hands.

[4] *Om de buydenningen* [*buijkdenningen*] *in den bock ende schuyte te maecken*—to make the bottom-boards (ceiling) of the yawl and boat.

[5] *Cleyne vaetgiens*—small casks. [6] *Schuyten*—boats.

[7] *So mede als wy altemet int ys beset mochten werden*—in order that whenever we should be enclosed by the ice.

rie than ever we were, for that our goods, both victualles and others, were then all in the ship; but God prouided so well for vs that it fell not out so unfortunatly.

The 12 of June it was indifferent faire weather; then we went with hatchets, halberds,[1] shouels and others instruments, to make the way plaine where we should draw the scute and the boate to the water side, along the way that lay full of knobbes and hilles of ice,[2] where we wrought sore with our hatchets and other instruments.[3] And while we were in the chiefest of our worke, there came a great leane beare out of the sea vpon the ice towards vs, which we iudged to come out of Tartaria, for we had [before] seene of them twenty or thirty [80 or 120] miles within the sea; and for that we had no muskets but only one which our surgian[4] carried, I ran in great haste towards the ship to fetch one or two, which the beare perceiuing ran [quickly and boldly] after me, and was very likely to haue ouer taken me, but our company seeing that, left their worke and ran [quickly] after her, which made the beare turn towards them and left me; but when she ran towards them, she was shot into the body by the surgian, and ran away, but because the ice was so uneuen and hilly she could not go farre, but being by vs ouer taken we killed her out right, and smot[5] her teeth out of her head while she was yet liuing.

The 13 of June it was faire weather; then the maister and the carpenters went to the ship, and there made the scute and the boate ready, so that there rested nothing as then but onely to bring it downe to the water side. The maister and those that were with him, seeing that it was open water and a good west wind, came back to the house againe, and there

[1] *Met bylen, houweelen ende allerley ghereetschap*—with hatchets, pick-axes, and all sorts of implements.

[2] *Ys ende ysberghen*—ice and icebergs.

[3] *Met houwen, snyten, schoppen, graven ende wechwerpen*—with chopping, throwing, pushing, digging, and clearing away.

[4] *Barbier*. See page 125, note 3.

[5] Smote, struck.

he spake vnto William Barents (that had bin long sicke), and shewed him that he thought it good (seeing it was a fit time) to goe from thence, and so willed the company[1] to driue[2] the boate and the scute downe to the water side, and in the name God to begin our voiage to saile from Noua Zembla. Then William Barents wrote a letter, which he put into a muskets charge[3] and hanged it vp in the chimney, shewing how we[4] came out of Holland to saile to the kingdome of China, and what had happened vnto vs being there on land, with all our crosses, that if any man chanced to come thither, they might know what had happened vnto vs [how we had fared], and how we had bin forced in our extremity to make that house, and had dwelt 10 mounthes therein. And for that we were [now forced] to put to sea in two small open boates and to vndertake a dangerous and aduenterous voiage in hand, the maister [also] wrote two letters, which most of vs subscribed vnto, signifying how we had stayed there vpon the land in great trouble and miserie, in hope that our ship would be freed from the ice and that we should saile away with it againe, and how it fell out to the contrary, and that the ship lay fast in the ice; so that in the end, the time passing away and our victuals beginning to faile vs, we were forced, for the sauing of our owne liues, to leaue[5] the ship and to saile away in our open boates, and so to commit our selues into the hands of God. Which done, he put into each of our scutes a letter,[6] y^t^ if we chanced to loose one another or y^t^ by stormes or any other misaduenture we

[1] *Ende besloten doen onderlinghen metten gemeenen maets*—and they then resolved jointly with the ship's company.

[2] *Brengen*—to bring, to take.

[3] *Ende heeft Willem Barentsz. te voren een cleijn cedelken ghescheeven, ende in een muskets mate ghedaen*—and William Barentsz had previously written a small scroll, and placed it in a *bandoleer*.

[4] "He".—*Ph.*

[5] Abandon.

[6] *Van welcke brief elcken schuyte een hadde*—of which letters each boat had one.

hapened to be cast away, that then by the scute that escaped men might know how we left each other. And so, haning finished all things as we determined, we drew the boate[1] to the water side and left a man in it, and went and fetcht the scute,[2] and after that eleuen sleads with goods, as victuals and some wine that yet remained, and the marchants goods which we preserued as wel as we could,[3] viz., 6 packs with [the] fine[st] wollen cloth, a chest with linnen, two packets w^t^ neluet, two smal chests with mony, two drifats[4] with the mens clothes [such as shirts], and other things, 13 barrels of bread, a barrell of cheese,[5] a fletch of bacon, two runlets of oyle, 6 small runlets of wine, two runlets of vinegar, with other packs [and clothes] belonging to ye sailers [and many other things]; so that when they lay altogether upon a heape, a man would haue iudged that they would not haue gone into the scutes. Which being all put into them, we went to the house, and first drew William Barents vpon a slead to the place where our scutes lay, and after that we fetcht Claes Adrianson,[6] both of them haning bin long sicke. And so we [being] entred into the scutes and deuided our selues into each of them alike, and put into either of them a sicke man, then the maister caused both the scutes to ly close one by the other, and there we subscribed to the letters which he had written [as is above mentioned], the coppie whereof hereafter ensueth. And so committing our selues to the will and mercie of God, with a west north-west wind and an endifferent open water, we set saile and put to sea.

[1] *Bock*—yawl. [2] Boat.

[3] *Daer wy alle naerstieheyt toe deden, om die so veel te berghen alst moghelijck was*—of which we took every care to preserve as much as was possible.

[4] *Harnas tonnen*—coffers, trunks.

[5] *Soetemelex kaes*—in modern Dutch, *zoetemelksche kaas*—*lit.* sweet-milk cheese. This is the ordinary Dutch cheese, well known in England, and which on a former occasion (page 124, note 11) was described as *koyenkaas*. It is the produce principally of North Holland.

[6] *Claes Andriesz.*—Nicholas, the son of *Andrew*, or Andrewson.

The Coppie of their Letter.

HAVING till this day stayd for the time and opportunity, in hope to get our ship loose, and now are cleane out of hope thereof,[1] for that it lyeth fast shut vp and inclosed in the ice, and in the last[2] of March and the first[3] of April the iee did so mightily gather together in great hils, that we could not deuise[4] how to get our scute and boate into the water and[5] where to find a conuenient place for it. And for that it seemed almost impossible to get the ship out of the ice, therefore I and William Barents our pilot,[6] and other the officers and company of sailors thereunto belonging, considering with our selues which would be the best course for vs to saue our owne liues and some wares belonging to the marchants, we could find no better meanes then to mend our boate and scute, and to prouide our selues as well as we could of all things necessarie, that being ready we might not loose or ouerslip any fit time and opportunity that God should

[1] *Daer als nu weynich oft geen hope toe en is*—whereof there is now little or no hope.

[2] End. [3] Beginning.

[4] *Dat we vast overleggen*—that we considered well.

[5] "Or."—*Ph.*

[6] *Daerome hebbe ic met Willem Barentsz. de hoogh-bootsman ende ander officie luyden met alle ander gasten*—therefore I, with William Barentsz. (and), the chief-boatswain and other officers, with the rest of the crew. At first sight it might appear that William Barentsz. is described as "hoogh-bootsman". This is evidently the idea of the translator, though he takes on himself to paraphrase the term by "our pilot". But the statement on the 20th June (page 198), that the chief-boatswain came on board the boat in which William Barentsz. was, just before the latter's death, clearly proves that two different persons are here intended: so that, in order to avoid ambiguity, a conjunction, or at least a comma, should be inserted between the two. From the list of the ship's company given in page 193, it may be safely inferred that the "chief-boatswain", or first mate, as we should now call him, was Pieter Pieterszoon Vos. It is he, most probably, who on the 28th August, 1596 (page 100) is called "the other pilot".

send vs; for that it stood us vpon[1] to take the fittest time, otherwise we should surely haue perished with hunger and cold, which as yet is to be feared will goe hard inough with vs, for that there are three or foure of vs that are not able to stirre to doe any thinge,[2] and the best and strongest of us are so weake with the great cold and diseases that we haue so long time endured, that we haue but halfe a mans strength; and it is to be feared that it will rather be worse then better, in regard of the long voiage that we haue in hand, and our bread wil not last vs longer then to the end of the mounth of August, and it may easily fal out, that the voiage being contrary and crosse vnto vs, that before that time we shall not be able to get to any land, where we may procure any victuals or other prouisions for our selues, as we haue hitherto done our best;[3] therefore we thought it our best course not to stay any longer here, for by nature we are bound to seeke our owne good and securities. And so we determined hereupon, and haue vnder written this present letter with our owne hands,[4] vpon the first of June 1597. And while vpon the same day we were ready and had a west wind [with an easy breeze] and an indifferent open sea, we did in Gods name prepare our selues and entred into our voiage, the ship lying as fast as euer it did inclosed in the ice, notwithstanding that while we were making ready to be gon, we had great wind out of the west, north, and north-west, and yet find no alteration nor bettering in the weather, and therefore in the last extremity we left it.[5] [Dated] vpon the 13 of June [and signed by] Jacob Hemskerke, Peter Peterson Vos,

[1] It was requisite for us.

[2] *Daer wy inden arbeyt geen hulpe af en hebben*—from whom in our work we have no help.

[3] *Als we al schoon van dees ur af ons best deden*—even if from this moment we did our best.

[4] *Ende int generael van ons allen onderteijeknet, gedaen ende besloten*—and in general by us all subscribed, done, and concluded.

[5] *Hebben wijt eyndelijck verlaten*—we have at length abandoned it.

Mr. Hans Vos,[1] Laurence Willinsō, Peter Cornelison, Iohn Remarson, William Barēts, Gerrat de Veer, Leonard Hendrickson, Iacob Ionson Scheadam, Iacob Ionsō Sterrenburg.[2]

[1] *Meester Hans Vos.* This is the barber-surgeon, of whom mention has been made in page 125, note 3. The title of "meester", representing the Latin *magister*, shows that he was a member of a learned profession, who had not improbably taken his degree of "Magister Artium Liberalium", at an university. In Hungary, at the present day,—as we learn from the evidence of C. A. Noedl, on the recent trial of C. Derra de Meroda against Dawson and others, in the notorious affair of the Baroness von Beck,—"if a man wishes to become *a surgeon*, he must attend six Latin schools [meaning, apparently, that he must keep six terms at the High School or University], *and learn to cut hair*".—*Morning Post*, July 29th, 1852.

In the journal of Captain James, printed in Mr. Rundall's *Narrative of Voyages towards the North-West* (page 199), is the following entry, under the date of November 30th, 1631:—"Betimes, in the morning, I caused the chirurgion to cut off my hair short, and to shave away all the hair of my face. . . The like did all the rest." This was at a period when, as appears from the muster-roll of Captain Waymouth's expedition, given in page 238 of the same volume, the rating of the surgeon, who thus acted as barber to the ship's company, was next after "the preacher", and before the master and the purser.

[2] The names, as here given, are neither correctly written nor placed in the order in which they stand in the original text. They are there ranged in six short columns of two names each, except the last, which has only one name; but the translator has read them as if written in two lines across the page. Correctly placed and written, the names are as follows:—

Iacob Heemskerck.
Willem Barentz.
Pieter Pietersz. Vos.
Gerrit de Veer.
Meester Hans Vos.
Lenaert Hendricksz.
Laurens Willemsz.
Iacob Iansz. Schiedam.
Pieter Cornelisz.
Iacob Iansz. Sterrenburch.
Ian Reyniersz.

There were four others, who did not sign, most likely from their inability to write, or from ill-health.

The 14 of June in the morning, the sunne easterly [½ p. 4 A.M.], we [by God's mercy] put of from the land of Noua Zembla and the fast ice therevnto adioyning, with our boate and our scute,[1] hauing a west wind, and sailed east north-east all that day to the Ilands Point,[2] which was fiue [20] miles; but our first beginning was not very good, for we entered fast into the ice againe, which there laie very hard and fast, which put vs into no smal feare and trouble; and being there, foure of us went on land, to know the scituation thereof, and there we tooke many[3] birds, which we kild with stones vpon the cliftes.[4]

The 15 of June the ice began to goe away; then we put to saile againe with a south wind, and past along by the Head Point[5] and the Flushingers Point,[6] streaching most north-east, and after that north, to the Point of Desire,[7] which is about 13 [52] miles, and there we laie till the 16 of June.

The 16 of June we set saile againe, and got to the Island[s] of Orange[8] with a south wind, which is 8 [32] miles distant from the Point of Desire; there we went one land with two small barrels and a kettle, to melt snow and to put ye water into ye barrels, as also to seeke for birds and egges to make meate for our sicke men; and being there we made fire with such wood as wee found there, and melted the snowe, but found no birds; but three of our men went ouer the ice to the other island, and got three birds, and as we came backe againe, our maister (which was one of the three) fell into the ice, where he was in great danger of his life, for in that place there ran a great streame;[9] but by Gods helpe he got out againe and came to vs, and there dryed himselfe by the fire that we had made, at which fire we drest the

[1] *Met ons bock ende schuijt.* [2] *De Eylandts hoeck.*
[3] *Vier*—four. The translator evidently red *veel.* [4] Cliffs.
[5] *Hooft-hoeck.* [6] *Vlissinghen hooft*—Flushing Head.
[7] *De Capo van Begeerte*—Cape Desire.
[8] *De Eylanden van Oraengien.*
[9] *Een gewelddighen stroom*—a strong current.

birds, and carried them to the scute to our sicke men, and filled our two runlets with water that held about eight gallons[1] a peece; which done, we put to the sea againe with a south-east wind and drowsie miseling weather,[2] whereby we were al dankish[3] and wet, for we had no shelter in our open scutes, and sailed west and west and by south to [opposite] the Ice Point.[4] And being there, both our scutes lying hard by each other, the maister[5] called to William Barents to know how he did, and William Barents made answeare and said, Well, God be thanked, and I hope before we get to Warehouse to be able to goe.[6] Then he spake to me and said, Gerrit, are we about the Ice Point? If we be, then I pray you lift me vp, for I must veiw it once againe;[7] at which time we had sailed from the Island[s] of Orange to the Ice Points about fiue [20] miles; and then the wind was[8] westerly, and we made our scuts fast to a great peece of ice[9] and there eate somewhat; but the weather was still fouler and fouler, so that we were once againe inclosed with ice and forced to stay there.

The 17 of June in the morning, when we had broken our fastes, the ice came so fast[10] vpon vs that it made our haires stare[11] vpright vpon our heades, it was so fearefull to behold;

[1] *Minghelen.* A measure of rather more than an English *quart.*

[2] *Mottich, leelich weder*—nasty drizzly weather.

[3] *Wasich*—damp.

[4] *Ys-hoeck.*

[5] *De schipper;* namely, Jacob Heemskerck.

[6] *Al wel, maet, ick hope noch te loopen eer wy te Waerhuys comen*—quite well, mate. I still hope to be able to run before we get to Wardhuus. It is a matter of interest that the last words of such a man as William Barentsz. should be correctly given.

[7] *Gerrit, zijn wy ontrent den Yshoeck, soo beurt my noch eens op; ic moet dien hoeck noch eens sien*—Gerrit, if we are near the Ice Point, just lift me up again. I must see that Point once more. The Ice Point is the *northernmost* point of Novaya Zemlya (see page 24, note 4): hence the interest felt in it by the sick man, who, in spite of his courageous talk, was doubtless aware that he should never see it again.

[8] *Liep ten westen*—went round to the west.

[9] *An de schotsen*—to the drift ice.

[10] *Soo vreeselijck*—so frightfully.

[11] Stand.

by which meanes we could not make fast[1] our scutes, so that we thought verily that it was a foreshewing of our last end; for we drauc away so hard with the ice, and were so sore prest between a flake of ice, that we thought verily the scutes would burst in a hundredth peeces, which made vs looke pittifully one upon the other, for no counsell nor aduise was to be found,[2] but euery minute of an houre[3] we saw death before our eies. At last, being in this discomfort and extreeme necessity, ye master said[4] if we could take hold with a rope vpon the fast ice,[5] we might therewith drawe ye scute vp, and so get it out of the great drift of ice. But as this counsell was good, yet it was so full of daunger, that it was the hazard of his life that should take vpon him to doe it; and without doing it, was it most certaine yt it would cost us all our liues. This counsell (as I said) was good, but no man (like to the tale of ye mise) durst hang the bell about ye cats necke, fearing to be drowned; yet necessity required to haue it done, and the most danger made vs chuse the least. So that being in that perplexity [and as a drowned calf may safely be risked],[6] I being the lightest of all our company tooke on me to fasten[7] a rope vpon the fast ice; and so creeping from one peece of driuing ice to another, by Gods help got to the fast ice, where I made a rope fast to a high howell,[8] and they that were in the scute drew it thereby vnto

[1] *Redden*—save.

[2] *Goet raet was duer* — good counsel was dear. A proverbial expression, explained in page 165, note 2.

[3] *Ooghenblick*—instant. [4] *Werter geseyt*—it was said (by some one).

[5] *Een trots ofte tou aent vaste ys conden vast cryghen*—could make fast a tackle or rope to the firm ice.

[6] *Een ghedrenckt calf goet te waghen is.* This is another Dutch proverb, which Gerrit de Veer modestly applies to himself, as signifying that his loss would not be much felt. The translator, not understanding the allusion or the force of the proverb, left it out; but on the other hand he, somewhat unnecessarily, introduced in the preceding passage the words "like to the tale of the mise", which are not in the original.

[7] *Te brenghen*—to carry. [8] *Een hoogen heuvel*—a high hummock.

the said fast ice, and then one man alone could drawe more than all of them could have done before. And when we had gotten thither, in all haste we tooke our sicke men out and layd them vpon the ice, laying clothes and other things vnder them [for them to rest on], and then tooke all our goods out of the scutes, and so drew them vpon the ice, whereby for that time we were deliuered from that great danger, making account that we had escaped out of death's clawes,[1] as it was most true.

The 18 of June we repaired and amended our scutes againe, being much bruised and crushed with the racking of the ice, and were forced to driue all the nailes fast againe, and to peece many things about them,[2] God sending vs wood wherewith we moult our pitch, and did all other things that belonged thereunto. That done, some of vs went vpon the land[3] to seeke for egges, which the sick men longed for, but we could find none, but we found foure birds, not without great danger of our liues betweene the ice and the firme land, wherein we often fell, and were in no small danger.

The 19 of June it was indifferent weather, the wind north-west, and [during the day west and] west south-west, but we were still shut vp in the ice and saw no opening, which made us thinke that there would be our last aboade, and that we should neuer get from thence; but on the other side we comforted our selves againe, that seeing God had helped vs oftentimes unexpectedly in many perils, and that his arme as yet was not shortened, but that he could [still] helpe vs[4] at his good will and pleasure, it made vs somewhat comfortable, and caused vs to speake cheerfully one unto the other.

The 20 of June it was indifferent weather, the wind west,

[1] *Des doots kaecken*—the jaws of death.

[2] *Allen de naeden hebben wy mede moeten versien ende dicht maecken, ende diversche presendinghe legghen*—we had likewise to examine and close all the *seams*, and to lay on pieces of tarpauling in various places.

[3] *Te landtwaert in*—towards the land.

[4] "Up".—*Ph.*

and when the sunne was south-east [½ p. 7 A.M.] Claes Adrianson[1] began to be extreme sicke, whereby we perceiued that he would not liue long, and the boateson[2] came into our scute[3] and told vs in what case he was, and that he could not long continue aliue; whereupon William Barents spake and said, I thinke I shal not liue long after him;[4] and yet we did not ivdge William Barents to be so sicke, for we sat talking one with the other, and spake of many things, and William Barents read in my card which I had made touching our voiage,[5] [and we had some discussion about it]; at last he laid away the card and spake vnto me, saying, Gerrit, give me some drinke;[6] and he had no sooner drunke but he was taken with so sodain a qualme, that he turned his eies in his head and died presently, and we had no time to call the maister out of the [other] scute to speake vnto him; and so he died before Claes Adrianson [who died shortly after him]. The death of William Barents put vs in no small discomfort, as being the chiefe guide and onely pilot on whom we reposed our selues next vnder God;[7] but we could not striue against God, and therefore we must of force be content.

The 21 of June the ice began to driue away againe, and God made vs some opening with [a] south south-west wind; and when the sunne was [about] north west the wind began to blow south-east with a good gale, and we began to make preparations to go from thence.

The 22 of June, in the morning, it blew a good gale out of the south-east, and then the sea was reasonable open, but we

[1] *Claes Andriesz.* See page 190, note 6.

[2] *De hoogh-bootsman*—the chief boatswain.

[3] *Bock*—yawl.

[4] *My dunckt tsal met my mede niet langhe dueren*—methinks with me too it will not last long.

[5] *Las in mijn caertgien dat ic van onse reyse gemaect hadde*—looked at my little chart, which I had made of our voyage.

[6] *Gerrit, geeft my eens te drincken*—Gerrit, give me something to drink.

[7] The words "next under God" are not in the text.

were forced to draw our scutes ouer the ice to get vnto it, which was great paine and labour vnto vs, for first we were forced to draw our scutes ouer a peece of ice of 50 paces long, and there put them into the water, and then againe to draw them vp vpon other ice, and after draw them at the least 300[1] paces more ouer the ice, before we could bring them to a good place, where we might easily get out. And being gotten vnto the open water, we committed our selues to God and set saile, the sunne being about east-north-east, with an indifferent gale of wind out of the south and south-south-east, and sailed west and west and by south, till the sunne was south, and than we were round about enclosed with ice againe, and could not get out, but were forced to lie still. But not long after the ice opened againe like to a sluce[2] and we passed through it and set saile againe, and so sailed along by the land, but were presently enclosed with ice; but, being in hope of opening againe, meane time we eate somewhat, for the ice went not away as it did before. After that we vsed all the meanes we could to breake it, but all in vaine; and yet a good while after the ice opened againe [of itself], and we got out and sailed along by the land, west and by south, with a south wind.

The 23 of June we sailed still forward west and by south till the sunne was south-east, and got to the Trust Point,[3] which is distant from the Ice Point 25 [100] miles, and then could go noe further because the ice laie so hard and so close together; and yet it was faire weather. The same day we tooke the hight of the sunne with the astralabium and also with our astronomicall ring, and found his hight to be 37 degrees, and his declination 23 degrees and 30 minutes, which taken from the hight aforesaid, there rested 13 degrees and 30 minutes, which substracted out of 90 degrees, the hight of the Pole was 76 degrees and 30

[1] "100."—*Ph.*

[2] *Sluijs*—lock, sluice.

[3] *Capo de Troosts*—Cape Comfort. See page 22, note 4.

minutes.[1] And it was faire sunne-shine weather, and yet it was not so strong as to melt the snow that we might haue water to drink; so that we set all our tin platers and other things[2] full of snow [in the sun] to melt, and so molt it [by the reflection of the sun, so that we had water to drink]; and [we also] put snow into our mouthes, to melt it downe into our throates;[3] but all was not enough, so that we were compelled to endure great thirst.

The stretching of the land from the house[4] *where we wintered, along by the north side of Noua Zembla to the Straights of Waigats, where we passed ouer to the coast of Russia, and ouer the entry of the White Sea to Cola,*[5] *according to the card*[6] *here ensueing.*

From the Low Land[7] to the Streame Baie,[8] the course east and west . . . 4 [16] miles.

From the Streame Baie to the Ice-hauen Point,[9] the course east and by north . 3 [12] miles.

From the Ice-hauen Point to the Islands Point,[10] the course east north-east . . 5 [20] miles.

From the Islands Point to the Flushingers Point,[11] the course north-east and by east . 3 [12] miles.

From the Flushingers Point to ye Head Point,[12] the course north-east . . 4 [16] miles.

[1] The elevation of the sun, corrected for refraction, was 36° 58′,7 and its declination + 23° 29′,4; so that the elevation of the Pole was 76° 30′,7.

[2] *De tinnen plateelen met alle het coperwerck*—the tin cans with all the copper vessels.

[3] *Voor ons drincken*—for our drink.

[4] *Streckinghe van't huijs af*—direction (of our course) from the house, etc.

[5] *Cola.* A small sea-port of Russian Lapland, in the government of Archangel, 540 miles N. of St. Petersburg. Population 1000.

[6] Chart. [7] *Het laghe landt.* [8] *Stroom-bay.*

[9] *Ysharens hoeck.* [10] *Eylandts hoeck.*

[11] *Vlissenger hooft*—Flushing Head. [12] *Hooft hoeck.*

From the Head Point to the Point of Desire,[1] the course south and north . . 6 [24] miles.

From the Point of Desire to the Island[s] of Orange,[2] north-west . . . 8 [32] miles.

From the Islands of Orange to the Ice Point,[3] the course west and west and by south 5 [20] miles.

From the Ice Point to the Point of Thrust[4] the course [west and] west and by south . 25 [100] miles.

From the Point of Trust to Nassawes Point,[5] the course[6] west and by north . 10 [40] miles.

From the Nassawe Point to the east end of the Crosse Island,[7] the course west and by north . . . . . 8 [32] miles.

From the east end of the Crosse Island to Williams Island,[8] the course west and by south 3 [12] miles.

From Williams Island to the Black Point,[9] the course west south-west . . . 6 [24] miles.

From the Black Point, to the east end of the Admirable Island,[10] the course west south-west . . . . . 7 [28] miles.

From the east to the west point of the Admirable Island, the course west south-west . 5 [20] miles.

From the west point of the Admirable Island to Cape Planto,[11] the course south-west and by west . . . . 10 [40] miles.

From Cape de Planto to Lombs-bay,[12] the course west south-west . . . 8 [32] miles.

[1] *De Hoeck van Beghcerten*—Cape Desire.
[2] *De Eylanden van Oraengien.*
[3] *De Yshoeck.*
[4] *Capo de Troosts*—Cape Comfort.
[5] *Capo de Nassauwen*—Cape Nassau.
[6] "West and."—*Ph.*
[7] *Het Cruijs Eylandt.*
[8] *Willems Eylandt.*
[9] *De Swarten Hoeck*—Cape Negro. See page 13.
[10] *Het Admiraliteyts Eylandt*—Admiralty Island.
[11] *Capo Plancio*—Cape Plancius. See page 219, note 4.
[12] *Lomsbay.* See page 12.

From Lombs-bay to the Staues Point,[1] the course west south-west . . . 10 [40] miles.

From the Staues Point to [Cape de Prior or] Langenesse,[2] the course south-west and by south . . . . . 14 [56] miles.

From [Cape Prior or] Langenes to Cape de Cant,[3] the course south-west and by south 6 [24] miles.

From Cape de Cant to the Point with the black clifts,[4] the course south and by west . 4 [16] miles.

From the Point with the black cliftes to the Black Island,[5] the course south south-east 3 [12] miles.

From the Black Island to Constint-sarke,[6] the course east and west . . . 2 [8] miles.

From Constint-sarke,[7] to the Crosse Point,[8] the course south south-east . . . 5 [20] miles.

From Crosse Point to S. Laurence Bay,[9] the course south-east[10] . . . 6 [24] miles.

From S. Laurence Bay[11] to Mel-hauen,[12] the course [south] south-east . . 6 [24] miles.

From Mel-hauen to the Two Islands,[13] the course south south-east . . . 16 [64] miles.

From the 2 Islands, where we crost ouer to the Russia coast, to the Islands of Matfloo and Delgoye,[14] the course south-west[15] . 30 [120] myles.

[1] *De Staten Hoeck*—States Point.

[2] *Capo de Prior oft Langhenes.* See page 11.

[3] *Capo de Cant.* See page 219.

[4] *De Hoeck met de swarte clippen*—the Point with the black *cliffs*.

[5] *Het Swarte Eylandt.*

[6] *Costintsarck.* See page 30, note 4.

[7] *Constinsarck.* A fatality seems to attend the spelling of this name.

[8] *Cruishoeck.* See page 31.

[9] *S. Laurens Bay.* See page 32.

[10] "S.S.E."—*Ph.*

[11] *S. Lauwersbay.*

[12] *Meelhaven.* See p. 33.

[13] *De twee Eylanden.* On the first voyage they were named St. Clara. See page 34.

[14] *Matfloo ende Delgoy.* See page 36, and also note 6 in page 50.

[15] The true course is almost south-*east*.

From Matfloo and Delgoye to the creeke[1] where we sailed the compasse [almost] round aboute, and came to the same place againe . 22 [88] miles.

From that creeke to Colgoy,[2] the course west north-west . . . . 18 [72] miles.

From Colgoy to the east point of Camdenas,[3] the course west north-west . . 20 [80] miles.

From the east point of Camdenas to the west side of the White Sea, the course west north-west . . . . . 40 [160] miles.

From the west point of the White Sea to the 7 Islands,[4] the course north-west . 14 [56] miles.

From the 7 Islands, to the west end of Kilduin,[5] the course north-west . . 20 [80] miles.

From the west end of Kelduin to the place where John Cornelis came vnto vs,[6] the course north-west and by west . . . 7 [28] miles.

From thence to Cola,[7] the course most[8] southerly . . . . . 18 [72] miles.

So that we sailed in two open scutes, some times in the ice, then ouer the ice, and through the sea . . . 381 [1524] miles.[9]

The 24 of June, the sunne being easterly, we rowed here and there [round about] in the ice, to see where

[1] *Inham*—inlet.

[2] *Colgoy*—the Island of Kolguev. See page 35, note 2.

[3] *Candenas*—Kanin Nos. See page 38, note 3.

[4] *De 7 Eylanden.* "The Seven Islands (*Sem Ostrovi*) lie about 16 leagues S.E. by S., by compass, from Tieribieri Point, and by varying the appearance serve to distinguish this part of the coast."—Purdy, *Sailing Directions for the Northern Ocean*, p. 82.

[5] See page 7, note 4.

[6] Namely, on August 30th, 1598.

[7] *Coel.* See page 200, note 5.

[8] "West."—*Ph.*

[9] Phillip has inserted here "381 miles Flemish, which is 1143 miles Inglish". The miles of the text are German or Dutch miles of 15 to the degree, as is stated in page 7, note 1.

we might best goe out, but we saw no opening; but when the sunne was south we got through into the sea, for the which we thanked God most heartilie that he had sent vs an vnexpected opening; and then we sailed with an east wind and went lustily forward, so that we made our account to get aboue[1] the Point of Nassawes;[2] [but we were again prevented by the ice which beset us, so that we were obliged to stop on the east side of the Point of Nassau] close by the land, and we could easily see the Point of Nassawes, and made our account to be about 3 [12] miles from it, the wind being south and south south-west. Then sixe of our men went on land and there found some wood, whereof they brought as much as they could into the scutes, but found neither birds nor egges; with the which wood they sod[3] a pot of water pap (which we called matsammore[4]), that we might eate some warme thing, the wind blowing stil southerly, [and the longer it blew the stronger it grew.]

The 25th of June it blew a great south wind, and the ice whereunto we made our selues fast was not very strong, whereby we were in greate feare that we should breake off from it and driue into the sea; for [in the evening], when the sun was in the west, a peece of that ice brake of, whereby we were forced to dislodge and make our selues fast to another peece of ice.

The 26 of June it still blew hard out of the south, and broke the ice whereunto we were fast in peeces, and we thereby draue into the sea, and could get no more to the fast ice, whereby we were in a thousand dangers to be all cast away; and driuing in y^t^ sort in the sea, we rowed as

[1] Beyond. [2] See page 92. [3] Boiled.

[4] *Matsammore.* Evidently a corruption of the Spannish *mazamorra*, which word, according to the *Diccionario* of the Royal Spanish Academy, means "biscuit powder, or biscuit broken and rendered unserviceable; also the pottage or food (made with bread or biscuit) which was given to the galley-slaves". The adoption of Spanish words by the Dutch is accounted for in page 12, note 1.

much as we could, but we could not get neere vnto the land, therefore we hoysed vp our fock;[1] and so made vp with our saile;[2] but our fock-mast[3] brake twice in peeces, and then it was worse for vs than before,[4] and notwithstanding that there blew a great gale of wind, yet we were forced to hoyse vp our great sayle,[5] but the wind blew so hard into it that if we had not presently taken it in againe we had sunke in the sea,[6] or else our boate would haue bin filled with water [so that we must have sunk]; for the water began to leap ouer borde,[7] and we were a good way in the sea, at which time the waues went so hollow [and so short] that it was most fearful, and we thereby saw nothing but death before our eyes, and euery twinckling of an eye lookt when we should sincke. But God, that had deliuered us out of so many dangers of death, holpe vs once againe, and contrary to our expectations sent vs a north-west wind, and so with great danger we got to ye fast ice againe. When we were deliuered out of that danger, and knew not where our other scute[8] was, we sailed one mile [4 miles] along by the fast ice, but found it not, whereby we were wholy out of heart and in great feare y^t^ they were drowned; at which time it was mistie weather. And so sailing along, and hearing no newes of our other scute,[9] we shot of a musket, w^h^ they hearing shot of another, but yet we could not see each other; meane time approaching nearer to each other, and the weather waxing somewhat cleerer, as we and they shot once againe, we saw the smoke of their peeces, and at last we met together againe, and saw them ly fast between driuing and

[1] Foresail.
[2] *Leyden op ons scylen toe*—tried to do it with our sailes.
[3] Foremast.
[4] *Arger als een gat*—worse than a *leak*.
[5] *Grootseyl*—main-sail.
[6] *In den grondt gheslaghen ghewcest*—been capsized.
[7] *Al over boort in te loopen*—to run quite over the gunwale.
[8] *Ons ander macker*—our other companion.
[9] *Onser macker*—our companion.

fast ice. And when we got near unto them, we went ouer the ice and holp them to vnlade the goods out of their scute, and drew it ouer the ice, and with much paine and trouble brought it into the open water againe; and while they were fast in the ice, we[1] found some wood vpon the land by the sea side, and when we lay by each other we sod[2] some bread and water together and eate it vp warme, which did vs much good.

The 27[3] of June we set saile with an indifferent gale out of the east, and got a mile [4 miles] aboue the Cape de Nassaw one the west side thereof, and then we had the wind against vs, and we were forced to take in our sailes and began to rowe. And as we went along [the firm ice] close by the land, we saw so many sea-horses lying vpon the ice [more than we had ever seen before] that it was admirable,[4] and a great number of birds, at the which we discharged 2 muskets and killed twelue of them, which we fetcht into our scutes. And rowing in that sort, we had a great mist, and then we entred into [the] driuing ice, so that we were compelled to make our scutes fast vnto the fast ice, and to stay there till the weather brake vp,[5] the wind being west northwest and right against vs.

The 28th of June, when the sunne was in the east, we laid all our goods vpon the ice, and then drew the scutes vpon the ice also, because we were so hardly prest on all sides with the ice, and the wind came out of the sea vpon the land, and therefore we were in feare to be wholely inclosed with the ice, and should not be able to get out thereof againe. And being vpon the ice, we laid sailes[6] ouer our scutes, and laie downe to rest, appointing one of our men to keepe watch; and when the sunne was north there

[1] *Hadden zy—they* had. [2] Boiled. [3] "17th."—*Ph.*
[4] *Jae zy waren ontelbaar*—nay, they were numberless.
[5] *Dattet op claerde*—till it cleared up.
[6] *Van de seylen een tente opgheslaghen*—made a tent of our sails.

came three beares towards our scutes, wherewith he that kept the watch cried [out lustily], three beares, three beares; at which noise we leapt out of our boates with our muskets, that were laden with haile-shot[1] to shoote at birds, and had no time to discharge[2] them, and therefore shot at them therewith; and although that kinde of shot could not hurt them much yet they ranne away, and in the meane time they gaue vs leisure to lade our muskets with bullets, and by that meanes we shot one of the three dead, which the other two perceauing ranne away, but within two houres after they came againe, but when they were almost at vs and heard us make a noise, they ranne away; at which time the wind was west and west and by north, which made the ice driue with great force into the east.

The 29th of June, the sunne being south south-west, the two beares came againe to the place where the dead beare laie, where one of them tooke the dead beare in his mouth, and went a great way with it ouer the rugged ice, and then began to eate it; which we perceauing, shot a musket at her, but she hearing the noise thereof, ran away, and let the dead beare lie. Then four of vs went thither, and saw that in so short a time she had eaten almost the halfe of her; [and] we tooke the dead beare and laid it vpon a high heap of ice, [so] that we might see it out of our scute, that if the beare came againe we might shoot at her. At which time we tried[3] the great strenght of the beare, that carried the dead bear as lightely in her mouth as if it had beene nothing, whereas we foure had enough to doe to cary away the halfe dead beare betweene vs. Then the wind still held west, which draue the ice into the east.

The 30 of June in the morning, when the sunne was east and by north, the ice draue hard eastward by meanes of the west wind, and then there came two beares vpon a

[1] *Haghel*—small shot.
[2] *Verladen*—re-load.
[3] *Bevonden*—found out; experienced.

peece of ice that draue in the sea, and thought to set vpon vs, and made show as if they would leape into the water and come to vs, but did nothing, whereby we were of opinion that they were the same beares that had beene there before; and about the south-south-east sunne there came an other beare vpon the fast ice, and made [straight] towards vs; but being neare vs, and hearing vs make a noise, she went away againe. Then the wind was west-south-west, and the ice began somewhat to falle from the land; but because it was mistie weather and a hard wind, we durst not put to sea, but staid for a better opportunitie.

The 1 of Julie it was indifferent faire weather, with a west-north-west wind; and in the morning, the sunne being east, there came a beare from the driuing yce and swam over the water to the fast yce whereon we lay; but when she heard vs she came no nearer, but ran away. And when the sunne was south-east, the ice came so fast in towards vs, that all the ice whereon we lay with our scutes and our goods brake and ran one peece vpon another, whereby we were in no small feare,[1] for at that time most of our goods fell into the water. But we with great diligence drew our scutes[2] further vpon the ice towards the land, where we thought to be better defended from the driuing of the ice, and as we went to fetch our goods we fell into the greatest trouble that euer we had before, for y^t^ we endured so great danger in the sauing thereof, that as we laid hold vpon one peece thereof the rest sunke downe with the ice, and many times the ice brake vnder our owne feet; whereby we were wholy discomforted and in a maner cleane out of all hope, expecting no issue thereof, in such sort that our trouble at that time surmounted all our former cares and impeachments. And when we thought to draw vp our boates[3] vpon the ice, the ice brake vnder vs, and we were caried away with the scute and al[4] by

[1] *Swaricheyt*—difficulty. [2] *Den bock*—the yawl. [3] *Ibid.*
[4] *Met schuijt ende al*—boat and all.

the driuing ice; and when we thought to saue the goods the ice brake vnder our feet, and with that the scute brak in many places, especially y^t^ which we had mended;[1] as ye mast, ye mast planke,[2] and almost all the scute,[3] wherein one of our men that was sick and a chest of mony lay, which we with great danger of our liues got out from it; for as we were doing it, the ice that was vnder our feet draue from vs and slid vpon other ice,[4] whereby we were in danger to burst both our armes and our legs. At which time, thinking y^t^ we had been cleane quit of our scute,[5] we beheld each other in pittiful maner, knowing not what we should doe, our liues depending thereon; but God made so good prouision for vs, y^t^ ye peeces of ice draue from each other, wherewith we ran in great haste vnto the scute[6] and drew it to vs again in such case as it was, and layd it vpon the fast ice by the boate,[7] where it was in more security, which put us unto an exceeding and great and dangerous labor from the time that the sunne was south-east vntill it was west south-west, and in al that time we rested not, which made vs extreame weary and wholy out of comfort, for that it troubled vs sore, and it was much more fearfull vnto vs then at that time when William Barents dyed; for there we were almost drowned, and that day we lost (which was sounke in the sea) two barrels of bread, a chest w^t^ linnen cloth, a drie-fat[8] with the sailors [best] clothes, our astron[omi]cale ring, a pack of scarlet cloth, a runlet of oyle, and some cheeses, and a runlet of wine, which bongd with the ice,[9] so that there was not anything thereof saued.

[1] *Dat wy daer aenghemaeckt hadden*—where we had added to it.
[2] *Mast-banck*—standing-thwart.
[3] *Al de schuijt*—the whole boat.
[4] *Ondert ander ys heen*—away *under* the other ice.
[5] We had entirely lost our boat.
[6] Boat. [7] Yawl. [8] *Harnas ton*—coffer; trunk.
[9] *Dat deurt ys den bodem ingheschoren werdt*—which was stove in by the ice.

The 2 of Julie, the sunne east, there came another beare vnto vs, but we making a noyse she ran away; and when the sun was west south-west it began to be faire weather. Then we began to mend our scute[1] with the planks wherewith we had made the buyckmish;[2] and while 6 of vs were busied about mending of our scute, the other sixe went further into the land, to seeke for some wood, and to fetch some stones to lay vpon the ice, that we might make a fire thereon, therewith to melt our pitch, which we should need about the scute, as also to see if they could fetch any wood for a mast [for the boat], which they found with certain stones,[3] and brought them where the scutes lay. And when they came to vs againe they shewed vs that they had found certain wood which had bin clouen,[4] and brought some wedges with them wherewith the said wood had been clouen, whereby it appeared that men had bin there. Then we made all the haste we could to make a fire, and to melt our pitch, and to do al other things that were necessary to be done for the repairing of our scute, so that we got it ready againe by that the sunne was north-east; at which time also we rosted[5] our birds [which we had shot], and made a good meale with them.

The 3 of July in the morning, the sunne being east, two of our men went to the water, and there they found two of our oares, our helme sticke,[6] the pack of scarlet cloth, the chest with linnen cloth, and a hat that fell out of the driefat,[7] whereby we gest[8] that it was broken in peeces; which they perceiuing, tooke as much with them as they could carry, and came vnto us, showing vs that they had left

[1] Boat. [2] *De buijckdenningh*—the bottom boards.
[3] "Staues."—*Ph.* A misprint.
[4] *Behouwen*—hewn; *i.e.*, laboured with an axe.
[5] *Coockten*—cooked; *lit.* boiled.
[6] *De helmstock*—the tiller of the rudder.
[7] *Harnas ton*—coffer; trunk.
[8] *Verstonden*—understood; became aware.

more goods behind them, whereupon the maister with 5 more of vs went thither, and drew al the goods vpon the firme ice, y^t^ when we went away we might take it with vs; but they could not carry the chest nor the pack of cloth (that were ful of water) because of their waight, but were forced to let them stand till we went away, that the water might drop out[1] of them [and we might afterwards fetch them], and so they did.[2] The sunne being south-west there came another great beare vnto vs, which the man that kept watch saw not, and had beene deuoured by her if one of our other men that lay downe in the ship[3] had not espied her, and called to him that kept watch to looke to himselfe, who therewith ran away. Meane time the beare was shot into the body, but she escaped; and that time the wind was east north-east.

The 4 of July it was so faire cleare weather, that from the time we were first in Noua Zembla we had not the like. Then wee washt the velucts, that had been wet with the salt water, in fresh water drawne out of snow, and then dryed them and packt them vp againe; at which time the wind was west and west south-west.

The 5 of July it was faire weather, the wind west south-west. The same day dyed John Franson[4] of Harlem (Claes Adrians[5] nephew, that dyed the same day when William Barents dyed[6]) the sunne being then about north north-west; at which time the ice came mightily driuing in vpon vs, and then sixe of our men went into the land, and there fetcht some fire-wood to dresse our meate.

The 6 of July it was misty weather, but about euening it began to cleere vp, and the wind was south-east, which put vs in some comfort, and yet we lay fast vpon the ice.

[1] *Afloopen*—run out; drain out.

[2] *Alst gheschiet is*—as it (afterwards) happened; as we afterwards did.

[3] *Van de schuijt af*—from out of the boat.

[4] *Jan Fransz.*—John, the son of Francis.

[5] *Claes Andriesz.* See page 190, note 6.

[6] See page 198.

The 7 of July it was faire weather with some raine, the wind west south-west, and at euening west and by north. Then wee went to the open water, and there killed[1] thirteene birds, which wee tooke vppon a peece of driuing ice,[2] and layd them vpon the fast ice.

The 8 of July it was close[3] misty weather; then we drest the foules[4] which we had killed, which gaue us a princely mealetide.[5] In the euening there blew a fresh gale of wind, out of the north-east, which put vs in great comfort to get from thence.

The 9 of July, in the morning, the ice began to driue, whereby we got open water on the land side, and then also the fast ice whereon we lay began to driue; whereupon the master and ye men went to fetch the pack and the chest that stood vpon the ice, to put them into the scute, and then drew the scutes to the water at least 340 paces, which was hard for vs to do, in regard that the labour was great and we very weake. And when the sun was south south-east we set saile with an east wind; but when the sunne was west we were forced to make towards the fast ice againe, because thereabouts it was not yet gon;[6] ye wind being south and came right from the land, whereby we were in good hope that it would driue awaye, and that we should proceede in our voyage.

The 10 of July, from the time that the sunne was east north-east till it was east, we tooke great paines and labour to get through the ice; and at last we got through, and rowed forth[7] vntill wee happened to fall betweene two great flakes[8] of ice, that closed one with the other,

[1] *Schoten*—shot.

[2] *Die wy op een schots ys nae dryvende, dan opraepten, ende op't vaste ys brachten*—which we then picked up by floating after them on a piece of drift ice, and brought upon the firm ice.

[3] *Mottich*—dirty.

[4] Fowls; birds.

[5] *Maeltijt*—meal; repast.

[6] *Afgheweecken*—given way.

[7] *Voort*—on; forward.

[8] *Velden*—fields.

so that we could not get through, but were forced to draw the scutes vpon them, and to vnlade the goods, and then to draw them ouer to the open water on the other side, and then we must go fetch the goods also to the same place, being at least 110 paces long, which was very hard for vs; but there was no remedy, for it was but a folly for vs to thinke of any wearines. And when we were in the open water againe, we rowed forward as well as we could, but we had not rowed long before we fell betweene two great flakes of ice, that came driuing one against the other, but by Gods help and our speedy rowing we got from betweene them before they closed vp, and being through, we had a hard west wind right in our teeth, so that of force we were constrained to make towards the fast ice that lay by the shore, and at last with much trouble we got vnto it. And being there, we thought to row along by the fast ice vnto an island that we saw before vs; but by reason of the hard contrary wind we could not goe farre, so that we were compelled to draw the scutes and the goods vpon the ice, to see what weather[1] God would send vs; but our courages were cooled to see ourselues so often inclosed in ye ice, being in great feare y^t^ by meanes of the long and continuall paines (which we were forced to take) we should loose all our strength, and by that meanes should not long be able to continue or hold out.

The 11 of July in the morning as we sate fast vpon the ice, the sunne being north-east, there came a great beare out of the water running towards vs, but we watcht for her with three muskets, and when she came within 30 paces of vs we shot all the three muskets at her and killed her outright, so that she stirred not a foote, and we might see the fat run out at the holes of her skinne, that was shot in with the muskets, swimme vpon the water like oyle; and [she] so driving[2] dead upon the water, we went vpon a flake of ice to her, and putting a rope about her neck

[1] *Uytcomst*—issue. [2] Floating.

drew her vp vpon the ice and smit out her teeth; at which time we measured her body, and found it to be eight foote thick.[1] Then we had a west wind with a close[2] weather; but when the sunne was south it began to cleere vp; then three of our men went to the island that lay before vs, and being there they saw the Crosse Island[3] lying westward from them, and went thither to see if that sommer there had been any Russian there, and went thither vpon the fast ice that lay between the two islands; and being in the island, they could not perceiue that any man had beene in it since we were there. There they got 70 [burrow-ducks'[4]] egges, but when they had them they knew not wherein to carry them; at last one of them put off his breeches, and tying them fast below, they carried them betweene two of them, and the third bare the musket; and so [they] came to vs againe, after they had been twelue hours out, which put vs in no small feare to think what was become of them. They told vs that they had many times gone vp to the knees in water vpon the ice betweene both the islands, and it was at least 6 [24] miles to and fro that they had gone, which made vs wonder how they could indure it, seeing we were all so weake. With the egges that they had brought we were al wel comforted, and fared like lords, so that we found some reliefe in our great misery,[5] and then we shared our last wine amongst us, whereof euery one had three glasses.[6]

The 12 of July in the morning, when the sunne was east, the wind began to blow east and east north-

[1] That is, in girth.

[2] *Mottich*—dirty; drizzly.

[3] *Het Cruijs Eylandt*. See page 16.

[4] *Bergh-eenden—lit.* mountain-ducks. This is the common shieldrake or burrow-duck (*Tadorna vulpanser*): Gould, *Birds of Europe*, vol. v, pl. 357. The trivial name "Bar-gander" (bergander) is manifestly a corruption of the Dutch name, and not of "Burrow-gander", as has been supposed.

[5] *Also dattet altemet kermis was tusschen onsen smert*—so that there was sometimes a holiday in the midst of our sorrows.

[6] *Drie minghelen*—three minghelen, equal to nearly one gallon.

east, with misty weather; and at euening six of our men went into the land[1] to seeke certaine stones,[2] and found some, but none of the best sort; and comming backe againe, either of them brought some wood.

The 13 of July it was a faire day; then seuen of our men went to the firme land to seeke for more stones, and found some; at which time the wind was south-east.

The 14 of July it was faire weather with a good south wind, and then the ice began to driue from the land, whereby we were in good hope to haue an open water; but the wind turning westerly againe, it lay still [firm]. When the sunne was south-west, three of our men went to the next island that lay before vs, and there shot a bercheynet,[3] which they brought to the scute and gaue it amongst vs, for all our goods were [in] common.

The 15 of July it was misty weather; that morning the wind was south-east, but the sunne being west it began to raine, and the wind turned west and west south-west.

The 16 of July there came a beare from the firme land that came very neere vnto vs, by reason that it was as white as snow, whereby at first we could not discerne it to be a beare, because it shewed so like the snow; but by her stirring at last wee perceiued her, and as she came neere vnto vs we shot at her and hit her, but she ran away. That morning the wind was west, and after that againe east north-east, with close[4] weather.

The 17 of July, about the south south-east sunne, 5 of our men went againe to the nearest island to see if there appeared any open water, for our long staying there was no small griefe vnto vs, perceiuing not how we should get from thence; who being halfe way thither, they found a beare

[1] *Aent landt*—on shore.

[2] *Steentgiens*—pebbles, or probably pieces of rock-crystal. See page 37.

[3] *Berch-eyndt*—burrow-duck. See note 4, in the preceding page.

[4] *Mottich*—drizzly.

lying behind a peece of ice, which the day before had beene shot by vs, but she hearing vs went away; but one of our men following her with a boate-hooke, thrust her into the skinne,[1] wherewith the beare rose vp vpon her hinder feet, and as the man thrust at her againe, she stroke the iron of the boat-hooke in peeces, wherewith the man fell downe vpon his buttocks. Which our other two men seeing, two of them shot the beare into the body, and with that she ran away, but the other man went after her with his broken staffe, and stroke the beare vpon the backe, wherewith the beare turned about against the man three times one after the other; and then the other two came to her, and shot her into the body againe, wherewith she sat downe vpon her buttocks, and could scant[2] runne any further; and then they shot once againe, wherewith she fell downe, and they smot[3] her teeth out of her head. All that day the wind was north-east and east north-east.

The 18 of July, about the east sunne, three of our men went vp vpon the highest part of the land, to see if there was any open water in the sea; at which time they saw much open water, but it was so farre from the land that they were almost out of comfort, because it lay so farre from the land and the fast ice; being of opinion that we should not be able to drawe the scutes and the goods so farre thither, because our strengthes stil began to decrease,[4] and the sore labour and paine that we were forced to indure more and more increased. And comming to our scutes, they brought vs that newes; but we, being compelled thereunto by necessity, abandoned all wearines and faint heartednes, and determined with our selues to bring the boates and the goods to the water side, and to row vnto that ice where we must passe ouer to get to the open water. And when we got to

[1] *In zijn huijt*—in the body.
[2] Scarcely.
[3] Smote; struck.
[4] *Hoe langher hoe meer ons begaven*—failed us more and more.

it, we vnladed our scutes, and drewe them first [the one and then the other] ouer the ice to the open water, and after that the goods, it being at the least 1000 paces; which was so sore a labour for vs, that as we were in hand therewith we were in a manner ready to leaue off in the middle thereof, and feared that wee should not goe through withall; but for that we had gone through so many dangers, we hoped y^t^ we should not be faint therin, wishing y^t^ it might be ye last trouble y^t^ we should as then indure, and so w^t^ great difficulty got into the open water about the south-west sunne. Then we set saile till the sunne was west and by south, and presently fell amongst the ice againe, where we were forced to drawe vp the scutes againe vpon the ice; and being vpon it, we could see the Crosse Island, which we gest to be about a mile [4 miles] from vs, the wind then being east and east north-east.

The 19 of July, lying in that manner vpon the ice, about the east sunne seuen of our men went to the Crosse Island, and being there they saw great store of open water in ye west, wherewith they much reioyced, and made as great haste as they could to get to the scutes againe; but before they came away they got a hundred egges, and brought them away with them. And comming to the scutes, they shewed vs that they had seen as much open water in the sea as they could decerne; being in good hope that that would be the last time that they should draw the scutes ouer the ice, and that it should be no more measured by vs,[1] and in that sort put vs in good comfort. Whereupon we made speede to dresse our egges, and shared them amongst vs; and presently, the sun being south south-west, we fell to worke to make all things ready to bring the scutes to the water, which were to be drawen at least 270[2] paces

[1] *Ende dat ons voort aen tselvige niet meer gemocten soude*—and that thenceforth the same would not happen to us again.

[2] "200."—*Ph.*

ouer the ice, which we did with a good[1] courage because we were in good hope that it would be the last time. And getting to the water, we put to sea, with Gods [merciful] helpe [in his mercy], with an east and east north-east wind and a good gale,[2] so that with the west sun we past by the Crosse Island, which is distant from Cape de Nassawes 10 [40] miles. And presently after that the ice left vs, and we got cleere out of it; yet we saw some in the sea, but it troubled vs not; and so we held our course west and by south, with a good gale of wind[3] out of the east and east north-east, so that we gest that betweene euery meale-tide[4] we sailed eighteene [72] miles, wherewith we were exceedingly comforted [and full of joy], giuing God thanks that he had deliuered [and saved] vs out of so great and many difficulties (wherein it seemed that we should haue bin ouerwhelmed), hoping in his mercie that from thence foorth he would [still mercifully) ayde vs.[5]

The 20 of July, hauing still a good gale,[6] about the south-east sunne we past along by the Black Point,[7] which is twelue [48] miles distant from the Crosse Island, and sailed west south-west; and about the euening with the west sunne we saw the Admirable Island,[8] and about the north sunne past along by it, which is distant from the Black Point eight [32] miles. And passing along by it, we saw about two hundred sea horses lying upon a flake of ice, and we sayled close by them

[1] *Grooter*—greater.

[2] *Recht voort laecken met een goeden voortgangh*—right before the wind, at a good rate.

[3] *Een doorgaende coelte*—a steady breeze.

[4] *In elck eetmael*—in every four-and-twenty hours. See page 88, note 5.

[5] Phillip here adds, "to bring our voyage to an end".

[6] *Hebbende noch die heerlijcke voortgang*—making still the same good speed.

[7] *Den Swarten Hoeck*—Cape Negro. See page 13.

[8] *Het Admiraliteyts Eylandt*—Admiralty Island. See page 13.

and draue them from thence, which had almost cost vs deere;[1] for they, being mighty strong fishes[2] and of great force, swam towards vs (as if they would be reuenged on us for the dispight that we had don them) round about our scuts[3] with a great noyse, as if they would haue deuoured vs; but we escaped from them by reason that we had a good gale of wind, yet it was not wisely done of vs to wake sleeping wolues.

The 21 of July we past by Cape Pluncio[4] about the east north-east sunne, which lyeth west south-west eight [32] miles from ye Admirable Island;[5] and with the good gale y^t^ we had, about ye south-west sun we sailed by Langenes, 9 [36] miles from Cape Pluncio; there the land reacheth most south-west, and we had a good[6] north-east winde.

The 22 of July, we hauing so good a gale of wind,[7] when we came to Cape de Cant,[8] there we went on land to seeke for some birds and egs, but we found none; so we sayled forwards. But after y^t^, about ye south sun, we saw a clift[9] y^t^ was ful of birds; thither we sailed, and casting stones at them, we killed 22 birds and got fifteene egges, which one of our men fetcht from the clift, and if we would haue stayed there any longer we might haue taken a hundred or two hundred birds at least; but because the maister was somewhat further into sea-ward then we and stayed for vs, and for that we would not loose that faire fore-wind,[10] we [speedily] sailed forwards [close] a long by the land; and about the south-west sunne we came to another point,

[1] Dear.

[2] *Zee-monsters.* De Veer knew better than to call the walrus *a fish.*

[3] Boats.

[4] *Capo Plancio* — Cape Plancius. This headland is not anywhere named in the account of the first voyage, though it appears in the chart of Lomsbay.

[5] Admiralty Island.

[6] *Heerlijck*—splendid.

[7] *Aldus noch een goeden voortgangh hebbende* — making still rapid progress.

[8] *Capo de Cant.*

[9] *Clip*—cliff.

[10] *Die moy deurgaende wint*—that fine steady breeze.

where we got [about] a hundred [and] twenty fiue birds, which we tooke with our hands out of their neasts, and some we killed with stones and made them fal downe into the water; for it is a thing certaine y^t those birds neuer vsed to see men, and that no man had euer sought or vsed to take them, for else they would haue flowne away,[1] and that they feared no body but the foxes and other wilde beastes, that could not clime up the high clifts,[2] and that therefore they had made their nests thereon, where they were out of feare of any beastes comming vnto them; for we were in no small daunger of breaking of our leggés and armes, especially as we came downe againe, because the clift was so high and so stepe. Those birds had euery one but one egge in their neasts, and that lay vpon the bare clift without any straw or other [soft] thing vnder them, which is to be wondred at to thinke how they could breed[3] their young ones in so great cold; but it is to be thought and beleeued that they therfore sit but vpon one egge, that so the heat which they giue in breeding so many, [having so much more power,] may be wholy giuen vnto one egge, and by that meanes it hath all the heat of the birde vnto it selfe, [and is not divided among many eggs at the same time]. And there also we found many egges, but most of them were foule and bad. And when we left them,[4] the wind fell flat against vs and blew [a strong breeze from the] north-west, and there also we had much ice, and we tooke great paines to get from the ice, but we could not get aboue it.[5] And at last by lauering[6] we fell into the ice; and being there we saw much open water[7] towards the land, whereunto we made as well as we could. But our maister, (that was [with his boat] more to

[1] The habits of these birds are not much altered by the presence of men, or else they would not be called *foolish* Guillemots. See page 12, note 3.

[2] Cliffs.

[3] Hatch.

[4] *Van daer af staecken*—put off from thence.

[5] Weather it.

[6] Lavecring.

[7] *Moy opeuinge*—a fine opening.

sea ward,) perceiuing vs to be in the ice, thought we had gotten some hurt, and lauered to and againe along by the ice; but at last seeing that we sailed therein,[1] he was of opinion that we saw some open water,[2] and that we made towards it (as it was true), and therefore he wound also towards vs and came to land by us, where we found a good hauen and lay safe almost from all winds, and he came thither about two houres after vs. There we went on land, and got some eggs and [picked up] some wood to make a fire, wherewith we made ready[3] the birds that we had taken; at which time we had a north-west wind with close[4] weather.

The 23 of July it was darke and mistie weather, with a north wind, whereby we were forced to lye still in that creeke or hauen: meanetime some of our men went on land,[5] to seeke for some egges and [perchance also for] stones,[6] but found not many, but a reasonable number of good stones.

The 24 of July it was faire weather, but the wind still northerly, whereby we were forced to lye still; and about noone we tooke the higth of ye sun with our astrolabium, and found it to be eleuated aboue the horizon 37 degrees and 20 min., his declination 20 degrees and 10 minutes, which substracted from ye higth aforesaid rested 17 degrees and 10 minutes, which taken from 90 degrees, the higth of the Pole was 73 degrees and 10 minutes.[7] And for y^t^ we lay stil there, some of our men went often times on land to seeke stones, and found some that were as good as euer any that we found.

The 25 of July it was darke misty weather, the wind north, but we were forced to ly still because it blew so hard.

The 26 of July it began to be faire weather, which we had

[1] *Daer in seylden*—sailed in that direction.
[2] *Openinge*—opening.
[3] *Coockten*—boiled.
[4] *Mottich*—dirty.
[5] *Te landtwaerts in*—towards the land.
[6] *Steentgiens*—pebbles.
[7] This calculation is altogether erroneous. The sun's declination on July 24th, 1598, was + 19° 47′,1; so that, with the observed height (corrected for refraction), the elevation of the Pole was only 72° 28′,3.

not had for certaine[1] daies together, the wind still north; and about the south sunne we put to sea, but it was so great a creeke that we were forced to put foure [16] miles into the sea,[2] before wee could get about[3] the point thereof; and it was most in[4] the wind, so that it was midnight before wee got aboue it, sometimes sayling and sometimes rowing; and hauing past it, we stroke[5] our sailes and rowed along by the land.

The 27 of July it was faire cleare weather, so that we rowed all that day through the broken ice along by the land, the wind being north-west; and at evening, about the west sunne, we came to a place where there ran a great streame,[6] whereby we thought that we were about Constinsarke;[7] for we saw a great creeke, and we were of opinion y^t^ it went through to the Tartarian Sea.[8] Our course was most south-west: about the north sunne we past along by the Crosse Point,[9] and sailed between the firme land and an island, and then went south south-east with a north-west wind, and made good speed, the maister with ye scute being a good way before us; but when he had gotten about ye point of the island he staied for vs, and there we lay [some time] by ye clifts,[10] hoping to take some birds, but got none; at which time we had sailed from Cape de Cant along by Constinsarke to the Crosse Point 20 [80] miles, our course south south-east, the wind north-west.

The 28 of July it was faire weather, with a north-east

[1] Several. [2] *T'zeewaert in*—to seawards. [3] Round.
[4] Against. [5] Struck, lowered.
[6] *Een gheweldigen stroom*—a powerful current. [7] *Constinsarck*.
[8] That is to say, the Sea of Kara. If it be an ascertained fact, that there is not here any passage eastward through Novaya Zemlya, this current must come from around the back of the Meyduscharski Island. But its existence, and the inference which was not unreasonably drawn from it, sufficiently explain why this passage has been called a *schar*, and not a *salma*. See page 30, note 4.
[9] *De Cruijs-hoeck*. See page 31. [10] Cliffs.

wind; then we sailed along by the land, and with the south-west sunne got before S. Laurence Bay, or Sconce Point,[1] and sayled south south-east 6 [24] miles; and being there, we found two Russians lodgies[2] or ships beyond the Point, wherewith we were [on the one hand] not a little comforted to thinke that we were come to the place where we found men, but were [on the other hand] in some doubt of them because they were so many, for at that time wee sawe at least 30 men, and knew not what [sort of persons] they were [whether savages or other foreigners[3]]. There with much paine and labour we got to the land, which they perceiuing, left off their worke and came towards vs, but without any armes; and wee also went on shore, as many as were well,[4] for diuers of vs were very ill at ease and weake by reason of a great scouring in their bodies.[5] And when wee met together wee saluted each other in friendly wise, they after theirs, and we after our manner. And when we were met, both they and we lookt each other stedfastly [and pitifully] in the face, for that some of them knew vs, and we them to bee the same men which the yeare before, when we past through the Weigats, had been in our ship;[6] at which time we perceiued y^t^ they were abasht and wondered at vs,[7] to remember that at that time we were so well furnished with a [splendid] great ship, that was exceedingly prouided of all things necessary, and then to see vs so leane and bare,[8] and with so small [open] scutes into that country. And amongst them there were two that in friendly manner clapt ye master and me upon the shoulder, as knowing vs since y^e^ [former] voiage: for there was none of all our men that was as then in

[1] *S. Laurens Bay, ofte Schans hoeck.* See page 32.

[2] See page 33, note 6.

[3] *On duytsche*—*un*-Dutch.

[4] *So veel alsser onser mochten van de sieckte*—as many of us as were able on account of our illness.

[5] *De scheurbuijck*—the scurvy.

[6] See page 56.

[7] *Over ons ontset oft becommert waren*—confused or concerned about us.

[8] *Ontstelt*—miserable.

that voiage[1] but we two onley; and [they] asked vs for our crable,[2] meaning our ship, and we shewed them by signes as well as we could (for we had no interpreter) that we had lost our ship in the ice; wherewith they sayd *Crable pro pal*,[3] which we vnderstood to be, Haue you lost your ship? and we made answere, *Crable pro pal*, which was as much as to say, that we had lost our ship. And many more words we could not vse, because we vnderstood not each other. Then they made shew[4] to be sorry for our losse and to be grieued that we the yeare before had beene there with so many ships, and then to see vs in so simple manner,[5] and made vs signes that then they had drunke wine in our ship, and asked vs what drinke we had now; wherewith one of our men went into the scute[6] and drew some water, and let them taste thereof; but they shakt their heads, and said *No dobbre*,[7] that is, it is not good. Then our master went neerer vnto them and shewed them his mouth, to giue them to vnderstand that we were troubled with a loosnesse in our bellies,[8] and to know if they could giue vs any councel to help it; but they thought we made shew that we had great hunger, wherewith one of them went unto their lodging[9] and fetcht a round rie loafe weighing about 8 pounds, with some smoked[10] foules, which we accepted thankfully, and gaue them in ex-

[1] *In de Weygats*—in the Weygats. See page 27, note 4.

[2] *Crabble:* intended for the Russian *korabl*, a ship.

[3] *Crabble pro pal.* The correct question and answer in Russian would be: *Propal korabl?*—is the ship lost? *Korabl propal*—the ship is lost.

[4] Made signs.

[5] *In soo soberen staet*—in so poor a condition.

[6] Boat.

[7] *No dobbre.* The correct Russian is *nyet dobre*—not good. These Russian seamen appear to have made use of a sort of *lingua franca*, half Russian, half English, which is still common among the persons of their class, having been acquired from their converse with English traders to the White Sea.

[8] *Van den schuerbuijck*—with the scurvy. See page 152, note 3.

[9] *Lodyien:* intended for the Russian word, *lodyi*—boats.

[10] "Smored."—*Ph.* A misprint.

change halfe a dozen of muschuyt.[1] Then our master led two of the chiefe of them with him into his seute, and gaue them some of the wine that we had, being almost a gallon,[2] for it was so neere out. And while we staied there we were very familiar with them, and went to the place where they lay, and sod some of our mischuyt[3] with water by their fire, that we might eate some warme thing downe into our bodies. And we were much comforted to see the Russians, for that in thirteene moneths time [since] that we departed from John Cornelison[4] we had not seene any man, but onely monsterous and cruell[5] wild beares; for that[6] as then we were in some comfort, to see that we had liued so long to come in company of men againe, and therewith we said vnto each other, now we hope that it will fall out better with vs, seeing we haue found men againe, thanking God with all our hearts, that he had beene so gracious and mercifull vnto vs, to giue vs life vntill that time.

The 29 of July it was reasonable faire weather, and that morning the Russians began to make preparation to be gone and to set saile; at which time they digd certaine barrels with traine oile out of the sieges,[7] which they had buried there, and put it into their ships; and we not knowing whither they would go, saw them saile towards ye Weigats: at which time also we set saile and followed after them. But they sayling before vs, and we following them along by the land, the weather being close and misty, we lost the sight of them, and knew not whether they put into any creeke or sayled forward; but we held on our course south south-east, with a north-west wind, and then south-east, betweene [the] two islands, vntill we were inclosed

[1] *Muschuijt* (for *bischuyt*)—biscuits.
[2] *Een minghelen*—about the third part of a gallon.
[3] Boiled some of our biscuit.
[4] Namely, at Bear Island, on the 1st of July, 1596. See page 85
[5] *Verschcurende*—ravenous.
[6] *Alsoo dat*—so that.
[7] *Cinghel*—shingle; beach.

with ice againe and saw no open water, whereby we supposed that they were about the Weigats, and that the north-west wind had driuen the ice into that creeke. And being so inclosed w^t^ ice, and saw no open water before vs, but with great labour and paines we went back againe to the two islands aforesaid, and there about the north-east sunne we made our scutes fast at one of the islands, for as then it began to blowe hard[er and harder].

The 30 of July lying at anchor,[1] the wind still blew [just as stiff from the] north-west, with great store of raine and a sore storme, so that although we had couered our scutes with our sailes, yet we could not lye dry, which was an vnaccustomed thing vnto vs: for we had had no raine in long time before, and yet we were forced to stay there all that day.

The 31 of July, in the morning, about the north-east sunne, we rowed from that island to another island, whereon there stood two crosses, whereby we thought that some men had laine there about trade of merchandise, as the other Russians that we saw before had done, but we found no man there; the wind as then being north-west, whereby the ice draue still towards the Weigats.[2] There, to our great good, we went on land, for in that island we found great store of leple leaues,[3] which serued vs exceeding well; and it seemed that God had purposely sent vs thither, for as then we had many sicke men, and most of vs were so troubled with a scouring in our bodies, and were thereby become so weake, that we could hardly row, but by meanes of those leaues we were healed thereof: for that as soone as we had eaten them we were presently eased and healed, whereat we could not choose but wonder,[4] and therefore we gave God

[1] *Aldus aent eylandt ligghende*—lying thus by the island.

[2] The Strait of Nassau. See page 27, note 4.

[3] *Lepel-bladeren*—spoon-wort or scurvy grass (*Cochlearia officinalis*), once in great repute as an antiscorbutic.

[4] *Jae meest al van de scheurbuijck alsoo gheplaecht waren, dat wy naulijch voorts mochten, ende deur dese lepelbladeren vry wat bequaem, want het hielp ons so merckelijcken ende haestich, dat wy ons selfs verwon-*

great thanks for that and for many other his mercies shewed vnto vs, by his great and vnexpected ayd lent vs in that our dangerous voyage. And so, as I sayd before, we eate them by whole handfuls together, because in Holland wee had heard much spoken of their great force, and as then found it to be much more than we expected.

The 1 of August the wind blew hard north-west, and the ice, that for a while had driuen towards the entry of the Weigats, stayed and draue no more, but the sea went very hollow,[1] whereby we were forced to remoue our scutes on the other side of the island; to defend them from the waues of the sea. And lying there, we went on land againe to fetch more leple leaues,[2] whereby wee had bin so wel holpen, and stil more and more recouered our healths, and in so short time that we could not choose but wonder thereat; so that as then some of vs could eate bisket againe, which not long before they could not do.[3]

The 2 of August it was dark misty weather, the wind stil blowing stiffe north-west; at which time our victuals began to decrease, for as then we had nothing but a little bread and water, and some of vs a little cheese, which made vs long sore to be gone from thence, specially in regard of our hunger, whereby our weake members began to be much weaker, and yet we were forced to labour sore, which were two great contraries; for it behoued vs rather to haue our bellies full, that so we might be the stronger to endure our labour; but patience was our point of trust.[4]

derden—yea, most of us were so afflicted with the scurvy that we could scarcely move, and by means of this spoon-wort we were much recovered; for it helped us so remarkably and so speedily, that we ourselves were astonished.

[1] Ran very high. [2] See note 3 in the preceding page.

[3] The almost instantaneous effect of a change of diet, and particularly of the use of fresh vegetables, in the cure of scurvy, has been noticed on numerous occasions.

[4] *Patientie was ons voorlandt*—*lit.* patience was our *fore-land*, that is to say, what we had constantly before us.

The 3 of August, about the north sun, the weather being somewhat better, we agreed amongst our selues to leaue Noua Zembla and to crosse ouer to Russia; and so committing our selues to God, we set saile with a north-west wind, and sailed south south-west till the sun was east, and then we entred into ice againe, which put vs in great feare, for we had crost ouer and left the ice vpon Noua Zembla,[1] and were in good hope y^t^ we should not meet with any ice againe in so short space. At which time, being [thus] in the ice, with calme weather, whereby our sailes could doe vs no great good, we stroke[2] our sailes and began to row againe, and at last we rowed clean through the ice,[3] not without great and sore labour, and about the south-west sunne got cleere thereof and entred into the large sea,[4] where we saw no ice; and then, what with sailing and rowing, we had made 20 [80] miles. And so sailing forwards we thought to aproch neere vnto the Russian coast, but about the north-west sunne we entred into the ice againe, and then it was very cold, wherewith our hearts became very heauy, fearing that it would alwaies continew in that sort, and that we should neuer be freed thereof. And for that our boate[5] could not make so good way nor was not able to saile aboue[6] the point of ice, we were compelled to enter into the ice, for that being in it we perceiued open sea beyond it; but the hardest matter was to get into it, for it was very close, but at last we found a meanes to enter, and got in. And being entred, it was somewhat better, and in the end with great paine and labour we got into the open water. Our maister, that was in the scute,[7] which sailed better than our boate,[8] got aboue[9]

[1] *Want wy haddent al overgheset ende adieu ghesceyt*—for we had quite crossed over *and bidden it adieu.*

[2] Struck, lowered.

[3] *Ende royden also deurt ys heen*—and thus rowed forward through the ice.

[4] *De ruyme zee*—the open sea. [5] *Bock*—Yawl. [6] To weather.

[7] Boat. [8] Yawl. [9] Weathered.

the point of the ice, and was in some feare that we were inclosed with ye ice; but God sent vs the meanes to get out from it as soone as he could saile about the point thereof,[1] and so we met together againe.

The 4 of August, about the south-east sunne, being gotten out of the ice, we sailed forward with a north-west wind, and held our course [mostly] southerly; and when the sunne was [about] south, at noone time, we saw the coast of Russia lying before vs, whereat we were exceeding glad; and going neerer vnto it, we stroke[2] our sailes and rowed on land, and found it to be very low land, like a bare strand that might be flowed ouer with the water.[3] There we lay till the sunne was south-west; but perceiuing that there we could not much further our selues, hauing as then sailed from the point of Noua Zembla (from whence we put off) thither ful 30 [120] miles, we sailed forward along by the coast of Russia with an indifferent gale of wind, and when the sunne was north we saw another Russian iolle or ship,[4] which we sailed vnto to speake with them; and being hard by them, they came al aboue hatches,[5] and we cried vnto them, *Candinaes, Candinaes,*[6] whereby we asked them if we were about Candinaes, but they cryed againe and sayd, *Pitzora, Pitzora,*[7] to shew vs that we were thereabouts. And for y^t we sailed along by the coast, where it was very drie,[8] supposing that we held our course west

[1] *Als hyt van buyten om seylde*—while he was rounding it on the outside.

[2] Struck, lowered.

[3] The point where they thus reached the Russian coast would seem to be in about 55 E. long., on the eastern side of the mouth of the Petchora.

[4] *Een Russche jolle*—a Russian yawl.

[5] *Boven op haer jolle*—on the deck of their yawl.

[6] *Candinaes*—Kanin Nos; the cape at the eastern side of the entrance to the White Sea. See page 38, note 3.

[7] *Pitzora*—the river Petchora. See page 55, note 3.

[8] *Daert seer droogh was*—where it was very shallow.

and by north, that so we might get beyond the point of Candinaes, we were wholy deceiued by our compas, that stood vpon a chest bound with yron bands, which made vs vary at least 2 points, whereby we were much more southerly then we thought our course had bin, and also farre more easterly, for we thought verily that we had not bin farre from Candinaes, and we were three daies sailing from it, as after we perceiued ;[1] and for that we found our selues to be so much out of our way, we stayed there all night til day appeared.

The 5 of August, lying there, one of our men went on shore, and found the land further in to be greene and ful of trees,[2] and from thence called to vs to bid vs bring our peeces on shore, saying that there was wild deere to be killed,[3] which made vs exceeding glad, for then our victuales were almost spent, and we had nothing but some broken bread,[4] whereby we were wholy out of comfort, and[5] some of vs were of opinion that we should leaue the scutes and goe further into the land, or else (they said) we should all die with hunger, for that many daies before we were forced to fast, and hunger was a sharpe sword which we could hardly endure any longer.

The 6 of August the weather began to be somewhat better; at which time we determined to row forward, because the wind was [dead] against vs, [so] that we might get out of the creeke,[6] the wind being east south-east, which was our

[1] We have here a convincing proof that they were no longer under the able guidance of William Barentsz. For this reason it has, since the time of his death, been deemed unnecessary to attempt to fix the hour of the day by the recorded bearing of the sun, as had been done previously.

[2] *Ende beroudt datter groente was, met sommighe cleyne boomkens*—and found verdure there with a few small trees.

[3] *Wilt te schieten*—game (for us) to shoot.

[4] *Wat schummelt broodt*—a little mouldy bread.

[5] *Also dat*—so that.

[6] *Den inham*—the bay or inlet; namely, the estuary of the river Petchora.

course as then. And so, hauing rowed about three [12] miles, we could get no further because it was so full in the wind, and we al together heartlesse and faint, the land streatching further north-east then we made account it had done,[1] whereupon we beheld each other in pittifull manner, for we had great want of victuals, and knew not how farre we had to saile before we should get any releefe, for al our victuals was almost consumed.

The 7 of August, the wind being west north-west, it serued vs well to get out of that creeke, and so we sailed forward east and by north till we got out of the creeke, to the place and the point of land where we first had bin, and there made our scutes fast again; for the north-west wind was right against vs, whereby our mens hearts and courages were wholy abated, to see no issue how we should get from thence; for as then sicknesses, hunger, and no meanes to be found how to get from thence, consumed both our flesh and our bloud; but if we had found any releefe,[2] it would haue bin better with vs.

The 8 of August there was no better weather, but still the wind was [dead] against vs, and we lay a good way one from the other, as we found best place for vs; at which time there was most dislike[3] in our boate, in regard that some of vs were exceeding hungrie and could not endure it any longer, but were wholy out of heart still[4] wishing to die.

The 9 of August it was all one weather, so that the wind blowing contrary we were forced to lye still and could goe no further, our greefe still increasing more and more. At last, two of our men went out of the scute wherein the maister was, which we perceiuing two of our men also landed, and went altogether about a mile [4 miles] into the countrie,[5] and at last saw a banke, by the which there issued

[1] This was the promontory on the western side of the Petchora estuary.

[2] *Hadde dcerlijck sien moghen helpen*—if looking deplorable could have helped us.

[3] *Verdriet*—sorrow.

[4] *Ende*—and.

[5] *'t laghe landt heuen*—along the low land.

a great streame of water,[1] which we thought to be the way from whence the Russians came betweene Candinaes and the firme land of Russia.[2] And as our men came backe againe, in the way as they went along they found a dead sea-horse[3] that stanke exceedingly, which they drew with them to our scute,[4] thinking that they should haue a dainty morsell[5] out of it, because they endured so great hunger; but we [dissuaded them from it, and] told them that without doubt it would kil us, and that it were better for vs to endure pouerty and hunger for a time, then to venture vpon it; saying, that seeing God, who[6] in so many great extremitys had sent vs a happy issue, stil liued and was exceeding powerfull, we hoped and nothing doubting that he would not altogether forsake vs, but rather helpe vs when we were most in dispaire.[7]

The 10 of August it was stil a north-west wind, with mistie and darke[8] weather, so that we were driuen[9] to lie still; at which time it was no need for vs to aske one another how we fared, for we could well gesse it by our countenances.

The 11 of August, in the morning, it was faire calme weather; so that, the sunne being about north-east, the master sent one of his men to vs to bid vs prepare our selues to set saile, but we had made our selues ready thereunto before he came, and [had] began to rowe towards

[1] *Een baeck staen daer een stroom by uyt liep*—a *beacon* standing, by which there ran a current.

[2] *Daer deur wy vermoeden datter de cours was daer de Russen heenen quamen, tusschen Candinas ende 't traste landt van Ruslandt*—whence we concluded that it was the course taken by the Russians between Kanin-Nos and the main-land of Russia.

[3] *Zee-robbe*—seal.

[4] *De schuyten*—the boats.

[5] *Een goedt wiltbraedt*—*lit.* a good venison.

[6] *Dat wy ons noch liever lyden souden, want Godt de Heere die*—that we should rather make shift without it; for the Lord God, who . . .

[7] *Maer opt onversienste helpen*—but help us when least foreseen.

[8] *Mottich*—dirty.

[9] Forced.

him. At which time, for that I was very weake and no longer able to rowe, as also for that our boate[1] was harder to rowe then the scute,[2] I was set in the scute to guide the helme, and one that was stronger was sent out of the scute into the boate to rowe in my place, that we might keepe company together; and so we rowed till ye sunne was south, and then we had a good gale of wind out of the south, which made vs take in our oares, and then we hoised vp our sailes, wherewith we made good way; but in the euening the wind began to blowe hard, whereby we were forced to take in our sailes and to rowe towards the land, where we laid our scutes vpon the strand,[3] and went on land to seeke for fresh water, but found none. And because we could goe no further, we laid our sailes ouer the boates to couer vs from the weather; at which time it began to raine very hard, and at midnight it thundred and lightned, with more store of raine, where with our company were much disquieted to see that they found no meanes of releefe, but still entred into further trouble and danger.

The 12 of August it was faire weather; at which time, the sunne being east, we saw a Russia lodgie[4] come towards vs with al his sailes vp, wherewith we were not a little comforted, which we perceauing from the strand, where we laie with our scutes, we desired the master that we might goe[5] vnto him to speake with him, and to get some victuales of them; and to that end we made as much haste as we could to launche out our scutes,[6] and sailed toward them. And when we got to them, the master went into the lodgie to aske them how farre we had to Candinaes, which we could not well learne of them because we understood them not. They held vp their fiue fingers vnto vs, but we knew not

[1] *Bock*—yawl.
[2] *Schuijt*—boat.
[3] *Dicht aent strandt*—close to the shore.
[4] *Lodja* or boat.
[5] *Seylen*—sail.
[6] *Om de schuyten inde diepte te crygben*—to get the boats into deep water.

what they ment thereby, but after we perceaued that thereby they would show us that there stood five crosses upon it; and they brought their compas out and shewed vs that it lay north-west from us, which our compas also shewed vs, which reckning also we had made; but when we saw we could haue no better intelligence from them, the master went further into their ship, and pointed to a barrell of fish y^{t} he saw therein, making signes to know whether they would sel it vnto vs, showing them a peece of 8 royles;[1] which they vnderstanding, gave vs 102 fishes, with some cakes which they had made of meale when they sod[2] their fishe. And about the south sunne we left them, being glad that we had gotten some victuales, for long before we had had but two[3] ounces of bread a day with a little water, and nothing else, and with that we were forced to comfort our selues as well as we could. The fishes we shared amongst vs equally, to one as much as another,[4] without any difference. And when we had left them, we held our course west and by north, with a south and a south and by east wind; and when the sunne was west south west it began to thunder and raine, but it continued not long, for shortly after the weather began to cleare vp againe; and passing forward in that sort, we saw the sunne in our common compas go downe north and by west.[5]

The 13 of August we [again] had the wind against vs, being west south-west, and our course was west and by north, whereby we were forced to put to the shore againe,

[1] A Spanish dollar, of eight reals. [2] Boiled. [3] *Vier*—four.

[4] *Soo wel de minste als de meest*—the lowest as well as the highest.

[5] There must be some mistake here. When the sun set on the 12th of August, in latitude 68° N., his azimuth was 46° 37′,7 W., which would give a variation of 35° 22′,3, or more than 3 points W. Perhaps N.N.W. should be read, instead of N. by W.; which would make the variation to have been about 2 points W. It is, however, to be feared that but little dependance can be placed on the observations made during the return voyage, after the death of Willem Barentsz.

where two of our men went on the land to see how it laie, and whether the point of Candinaes reacht not out from thence into the sea, for we gest that we were not farre from it. Our men comming againe, showed vs that they had seene a house vpon the land, but no man in it, and said further that they could not perceaue but that it was the point of Candinaes that we had seene, wherewith we were somewhat comforted, and went into our scutes againe, and rowed along by the land; at which time hope made vs to be of good comfort, and procured vs to doe more then we could well haue done, for our liues and maintenance consisted therein. And in that sort rowing along by the land, we saw an other Russian iollie[1] lying vpon the shore, which was broken in peeces; but we past by it, and a little after that we saw a house at the water-side, whereunto some of our men went, wherein also they found no man, but only an ouen. And when they came againe to the scute, they brought some leple leaues[2] with them, which they had found[3] as they went. And as we rowed along by the point, we had [again] a good gale of winde[4] out of the east, at which time we hoised vp our sailes and sailed foreward. And after noone, about the south-west sunne, we perceaued that the point which we had seene laie south-ward, whereby we were fully perswaded that it was the point of Candinaes, from whence we ment[5] to saile ouer the mouth of the White Sea;[6] and to that end we borded each other and deuided our candles and all other things that we should need amongst vs,[7] to helpe our seules therewith, and so put of from the land, thinking to

[1] *Jolle*—yawl. [2] *Lepelbladeren*—spoon-wort. See page 226, note 3.

[3] *Opghebluckt*—plucked. [4] *Een moy coeltgen*—a nice breeze.

[5] Meant; intended. Misprinted "went".

[6] This point, which they mistook for "Candinaes", or Kanin Nos, was apparently Cape Barmin, on the east side of Tcheskaya Bay, over which they now proceeded to cross, under the impression that it was the White Sea.

[7] *Wat wy malcanderen mochten mede deelen* — that we could divide between us.

passe ouer the White Sea to the coast of Russia.[1] And sailing in that sort with a good winde, about midnight there rose a great storme out of the north, wherewith we stroke saile and made it shorter;[2] but our other boate, that was harder vnder saile,[3] (knowing not that we had lessened our sailes,) sailed foreward, whereby we straied one from the other, for then it was very darke.

The 14 of August in the morning, it being indifferent good weather with a south-west wind, we sailed west north-west, and then it began to cleare vp, so that we [just] saw our [other] boate, and did what we could to get vnto her, but we could not, because it began to be mistie weather againe; and therefore we said unto each other, let vs hold on our course, we shal finde them wel enough on the north coast, when we are past the White Sea.[4] Our course was west north-west, the wind being south-west and by west, and about the south-west sunne, we could get no further, because the wind fel contrary, whereby we were forced to strike our sailes and to row forward; and in that sort, rowing till the sunne was west, there blew an indifferent gale of wind[5] out of the east, and therewith we set saile (and yet we rowed with two oares) till the sunne was north north-west, and then the wind began to blow somewhat stronger east and east south-east, at which time we tooke in our oares and sailed forward west north-west.

The 15 of August wee saw the sunne rise east north-east, wherevpon we thought that our compasse varied somewhat;[6]

[1] *Nae Ruslandt toe.* This is a mistake in the original. The coast of *Norway* or Lapland is meant.

[2] *Wy ons seijl streecken, ende namen een riff oft twee in*—we lowered our sail and took in a reef or two.

[3] *Onse maets die wat styver onder seijl waren*—our comrades, who stood somewhat better under sail.

[4] *Aendt Noordtsche cust over de Witte Zee*—on the coast *of Norway*, on the other side of the White Sea.

[5] *Koelte*—breeze.

[6] *Vry wat*—a good deal. As the sun's azimuth at his rising was

and when the sunne was east it was calme weather againe, wherewith we were forced to take in our sailes and to row againe, but it was not long before wee had a gale of winde[1] out of the south-east, and then we hoysed vp our sailes againe, and went forward west and by south. And sayling in that manner with a good forewind,[2] when the sunne was south we saw land,[3] thinking that as then we had beene on the west side of the White Sea beyond Cardinaes; and being close vnder the land, we saw sixe Russian lodgies[4] lying there, to whom we sailed and spake with them, asking them how far wee were from Kilduin;[5] but although they vnderstood vs not well, yet they made vs such signes that we vnderstood by them that we were still farre from thence, and that we were yet on the east side of Candinaes. And with that they stroke their hands together,[6] thereby signifying y^t^ we must first passe ouer the White Sea, and that our scutes were too little to doe it, and that it would be ouer great daunger for vs to passe ouer it with so small scutes, and that Candinaes was still north-west from vs. Then wee asked them for some bread, and they gaue vs a loafe, which [dry as it was] wee eate hungerly vp as wee were rowing, but wee would not beleeue them that we were still on the east side of Cardinaes, for we thought verily that wee had past ouer the White Sea. And when we left them, we rowed along by the land, the wind beeing north; and about the north-west sunne we had a good wind againe from the south-east, and therewith we sayled along by the shore, and saw a great Russian lodgie lying on the starreboord from vs, which we thought came out of the White Sea.

49° 56′,5 W., the variation would be 17° 33′,5 or about 1½ points W. This, as compared with the observation of the 12th August, *as recorded*, shows a considerable difference. But, as is remarked in the note on that observation, the error is more likely to be on that than on the present occasion.

[1] *Koelte*—breeze. [2] *Een moye coelte*—a nice breeze.

[3] They had here reached the western side of Tcheskaya Bay.

[4] Boats. [5] *Kilduijn*. See page 7, note 1.

[6] *Zy smeten haer handen van een*—they spread their hands out.

The 16 of August in the morning, sayling forward north-west, wee perceiued that we were in a creeke,[1] and so made towards ye Russian lodgie which we had seene on our starreboord, which at last with great labour and much paine we got vnto; and comming to them about the south-east sunne, with a hard wind, we asked them how farre we were from Sembla de Cool[2] or Kilduin; but they shooke their heads, and shewed us that we were on the east side of Zembla de Candinaes[3] but we would not beleeue them. And then we asked them [for] some victuals, where-with they gaue vs certaine plaice, for the which the maister gaue them a peece of money, and [we] sailed from them againe, to get out of that hole where wee were,[4] as it reacht into the sea; but they perceiuing that we tooke a wrong course and that the flood was almost past, sent two men vnto vs, in a small boate, with a great loafe of bread, which they gaue vs, and made signes vnto vs to come aboord of their ship againe,[5] for that they intended to haue further speech with vs and to help[6] vs, which we seemed not to refuse and desiring not to be vnthankfull, gaue them a peece of money and a peece of linnen cloth, but they stayed still by vs, and they that were in the great lodgie held vp bacon and butter vnto vs, to moone vs to come aboord of them againe, and so we did. And being with them, they showed vs that we were stil on the east side of the point of Candinaes; then we

[1] *Gantsch in een inham beset*—quite inclosed in a bay or creek. They would seem to have here been at the north-western corner of Tcheskaya Bay.

[2] *Vraeghen wy haer nae Sembla de Cool*—we asked them after *Sembla de Cool*. By this jargon, which is here a compound of Russian and *Spanish*, the Dutch seamen desired to obtain information respecting "the country of Kola", in Lapland.

[3] *Dattet Sembla de Candinas was*—that it was Sembla de Candinas; *i.e.*, Kanineskaya Zemlya.

[4] *Om deur dat gat te comen daer zy voor lagen*—to get through the passage, before which they lay.

[5] *Weder aen haer schip*—back to their ship.

[6] *Onderrechten*—to instruct; to give information.

fetcht our card[1] and let them see it, by the which they shewed vs that we were still on the east side of the White Sea and of Candinaes; which we vnderstanding, were in some doubt with our selues[2] because we had so great a voiage to make ouer the White Sea, and were in more feare for our companions that were in the boate,[3] as also y^t^ hauing sailed 22 [88] miles along by the Russian coast,[4] we had gotten no further, but were then to saile ouer the mouth of the White Sea with so small prouision; for which cause the master bought of ye Russians three sacks w^t^ meale, two flitches and a halfe of bacon, a pot of Russia butter, and a runlet of honny, for prouision for vs and our boate[5] when we should meet with it againe. And for y^t^ in the meane time the flood was past, we sailed with the [beginning of the] ebbe out of the aforesaid creeke[6] where the Russians boate[7] came to vs, and entred into the sea with a good south-east wind, holding our course north north-west; and there we saw a point that reacht out into the sea, which we thought to be Candinaes, but we sailed still forward, and the land reached north-west.[8] In the eueuing, the sunne being north-west, when we saw that we did not much good with rowing, and that the streame[9] was almost past, we lay still, and sod[10] a pot full of water and meale, which tasted exceeding well, because we had put some bacon fat and honny into it, so that we thought it to be a feastiuall day[11] with vs, but still our minds ran vpon our boate,[12] because we knew not where it was.

[1] *Caerte*—chart. [2] *Waren beducht*—were alarmed. [3] *Bock*—yawl.

[4] *Nu wy* 22 *mylen al over de zee waren geseylt*—now that we had sailed 22 miles right across the sea.

[5] *Onse mackers*—our companions. [6] *Gat*—passage.

[7] *Het cleyne lodtgien*—the little lodja or boat.

[8] *Omviel hem n. w.*—turned to the N.W. This must have been Cape Mikalkin, the S.E. cape of Kanineskaya Zemlya.

[9] *Stroom*—tide. [10] Boiled.

[11] *Datter kersmis was*—that it was *Christmas*. It is *kermis*, which means a festival or fair-day. See page 39, note 2.

[12] *Onse ander maets*—our other companions.

The 17 of August, lying at anchor, in the morning at breake of day we saw a Russian lodgie that came sayling out of the White Sea, to whom we rowed, that we might haue some instruction[1] from him; and when we boorded him, without asking or speaking vnto him, he gaue vs a loafe of bread, and by signes shewed vs as well as he could that he had seene our companions, and that there was seuen men in the boate; but we not knowing well what they sayd, neither yet beleeuing them, they made other signes vnto vs,[2] and held vp their seuen fingers and pointed to our scute, thereby shewing that there were so many men in the boate,[3] and that they had sold them bread, flesh, fish, and other victualls. And while we staid in their lodgie, we saw a small compasse therein, which we knew that they had bought[4] of our chiefe boatson,[5] which they likewise acknowledged. Then we vnderstanding them well, askt them how long it was since they saw our boate[6] and whereabouts it was, [and] they made signes vnto vs that it was the day before. And to conclude, they showed vs great friendship, for the which we thanked them; and so, being glad of the good newes wee had heard we tooke our leaues of them, much reioycing that wee heard of our companions welfare, and specially because they had gotten victuals from the Russians, which was the thing that wee most doubted of, in regard that we knew what small prouision they had with them. Which done, we rowed as hard as we could, to try if we might ouertake them, as being still in doubt that they had not prouision inough, wishing that we had had part of ours: and hauing rowed al that day with great labour along by the land, about mid-

[1] *Bescheyt*—information.

[2] *Soo beduyden zijt ons noch bet*—they explained it better to us.

[3] *Dattet mede sodanighen open schuijt was*—that it was a similar open boat.

[4] *Hadden*—had; obtained.

[5] *Hooghbootsman*—the chief-boatswain, or first mate.

[6] *Volck*—people.

night we found a fall of fresh water, and then we went on land to fetch some [water], and there also we got some leple leaues.[1] And as we thought to row forward, we were forced to saile, because the flood was past,[2] and still wee lookt earnestly out for the point of Candinaes, and the fiue crosses, whereof we had beene instructed by the Russians, but we could not see it.

The 18 of August in the morning, the sunne being east, [in order to gain time] wee puled vp our stone (which we vsed in steed of an anchor,[3]) and rowed along by the land till the sunne was south, then wee saw a point of land reaching into the sea, and on it certaine signes of crosses,[4] which as we went neerer vnto wee saw perfectly; and when the sunne was west, wee perceiued that the land reached west and south-west, so that thereby we knew it certainly to be the point of Candinaes, lying at the mouth of the White Sea, which we were to crosse, and had long desired to see it. This point is easily to be knowne, hauing fiue crosses standing vpon it, which are perfectly to be decerned, one the east side in the south-east, and one the other side in the south-west.[5] And when we thought to saile from thence to the west side of the White Sea towards the coast of Norway, we found that one of our runlets of fresh water was almost leakt out; and for that we had about 40 Dutch [160] miles to saile ouer the sea before we should get any fresh water, we

[1] See page 226, note 3.

[2] *Ende als wy meenden voort te varen, so moesten wy daer blyven liggen, want den stroom verloopen was*—and when we intended to proceed on our voyage, we were forced to remain lying there, because the tide had run out.

[3] *Werp-aneker*—kedge.

[4] *Schemeringe van eenige cruycen*—the faint imàges of some crosses.

[5] *Desen hoeck is een kenlijeken hoeck met 5 cruycen daer op, ende dat-men perfect can sien hoese aen beyden syden omvalt, aen de eene zyde int z. o. ende d'ander zyde int z. w.*—this point is a conspicuous one, having on it five crosses, and the direction of it on either side is perfectly discernible; it being on the one side towards the S.E., and on the other side towards the S.W.

sought meanes first to row on land to get some, but because the waues went so high we durst not do it ; and so hauing a good north-east wind (which was not for vs too slack[1]) we set forward in the name of God, and when the sunne was north-west we past the point,[2] and all that night and the next day sailed with a good wind, and [in] all that time rowed but while three glasses were run out;[3] and the next night after ensuing hauing still a good wind, in the morning about the east north-east sunne we saw land one the west side of the White Sea, which we found by the rushing of the sea vpon the land before we saw it. And perceiuing it to be ful of clifts,[4] and not low sandy ground with same hills[5] as it is on the east side of the White Sea, we assured our selues[6] that we were on ye west side of the White Sea, vpon the coast of Lapeland, for the which we thanked God that he had helped vs to saile over the White Sea in thirty houres, it being forty Dutch [160] miles at the least, our course being west with a [nice] north-east wind.

The 20 of August, being not farre from the land, the north-east wind left vs, and then it began to blow stiffe north-west ; at which time, seeing we could not make much way by sailing forward, we determined to put in betweene certaine clifts, and when we got close to the land we espied certaine crosses with warders[7] vpon them, whereby we vnderstood that it was a good way,[8] and so put into it. And

[1] *Die wy niet dienden te versnymen*—which it would not do for us to neglect.

[2] *Ende maeckten een afsteecker ontrent de son n. w.* — we *took our departure* when the sun was about N.W.

[3] An hour and a half.

[4] *Dat dit een ander clippich lant was* — that it was another rocky shore.

[5] *Met weynich geberchte*—with few mountains. [6] Made sure.

[7] *Waerders*—cautions; directions.

[8] *Dat daer een goede reede was*— that there was a good *roadstead* there.

being entred a litle way within it, we saw a great Russian lodgie[1] lying at an anchor, whereunto we rowed as fast as we could, and there also we saw certaine houses wherein men dwelt. And when we got to the lodgie, we made our selues fast vnto it,[2] and cast our tent ouer the scute, for as then it began to raine. Then we went on land into the houses that stood vpon the shore, where they showed vs great friendship, leading vs into their stoawes,[3] and there dried our wet clothes, and then seething some fish, bade vs sit downe and eate somewhat with them.[4] In those little houses we found thirteene Russians, who euery morning went out [in two boats] to fish in the sea; whereof two of them had charge ouer the rest. They liued very poorely, and ordinarily eate nothing but fish and bread.[5] At euening, when we prepared our selues to go to our scute againe, they prayed the maister and me to stay with them in their houses, which the maister thanked them for, would not do [and went into the boat], but I stayed with them al that night. Besides those thirteene men, there was two Laplanders more and three women with a child, that liued very poorely of the ouerplus[6] which the Russians gaue them, as a peece of fish and some fishes heades, which the Russians threw away and they with great thankfulnesse tooke them vp, so that in respect of their pouertie [and ill condition] we thought our selues to bee well furnished,[7] and yet we had little inough, but as it seemed their ordinary liuing was in that manner. And we were forced to

[1] *Lodja* or boat.

[2] *So maeckten wy ons daer vast*—we anchored there.

[3] *Zy leyden ons in haer stoven* — they led us into their rooms. In Dutch, as in German, a room heated by a stove or oven is called by the name of the latter, *stove* or *stube*.

[4] *Coocten ons een sode visch, ende nooden ons seer hertelijck*—cooked us a dish of fish, and made us right welcome.

[5] *Visch tot visch*—*lit.* fish with fish; *i.e.*, nothing but fish.

[6] *Overschot*—remains.

[7] *Wy . . . ons heel ontsetteden*—we were quite astonished.

stay there for that the wind being north-west, it was against vs.

The 21 of August it rained most part of the day, but not so much after dinner as before. Then our master brought[1] good store of fresh fish, which we sod,[2] and eate our bellies full, which in long time we had not done, and therewith sod some meale and water in steed of bread, whereby we were well comforted. After noone, when the raine began to lessen, we went [at times a little] further into the land and sought for some leple leaues,[3] and then we saw two men vpon ye hilles, whereupon we said one to the other, hereabouts there must more people dwel, for there came two men towards vs, but we, regarding them not, went back againe to our scute and towards the houses. The two men that were vpon the hilles (being some of our men that were in the [other] boate,) perceauing [also] the Russian lodgie, came downe the hill towards her to buy[4] some victuales of them; who being come thither vnawares[5] and hauing no mony about them, they agreed betweene them to put off one of their paire of breeches, (for that as then we ware two or three paire one ouer the other,) to sel them for some victuals.[6] But when they came downe the hill and were semewhat neerer vnto vs, they espied our scute lying by the lodgie, and we as then beheld them better and knew them; wherewith we reioyced [much on both sides], and shewed each other of our proceedings and how we had sailed to and fro in great necessity and hunger and yet they had been in greater necessitie and danger then we, and gaue God thankes that he had preserued vs aliue and brought vs together againe. And then we eate something together, and

[1] *Cocht*—bought.

[2] *Coockten*—cooked.

[3] *Lepel bladeren*—spoon-wort or scurvy-grass. See page 226, note 3.

[4] *Te becomen*—to procure; to obtain.

[5] *Onversiens*—unprepared.

[6] *Om daer eten voor te coopen*—to buy victuals therewith.

dranke of the cleare water, such as runneth along by Collen through the Rein,[1] and then we agreed that they should come vnto vs, that we might saile together.

The 22 of August the rest of our men[2] with the boate came unto vs about the east south-east sunne, whereat we much reioyced, and then we prayed the Russians cooke to bake a sacke of meale for vs and to make it bread, paying him for it, which he did. And in the meane time, when the fishermen came with their fishe out of the sea, our maister bought foure cods of them, which we sod and eate. And while we were at meat, the chiefe of the Russians came vnto vs, and perceiuing that we had not much bread, he fetcht a loaf and gave it vs, and although we desired them to sit downe and eate some meat with vs, yet we could by no means get them to graunt thereunto, because it was their fasting day and for y^t^ we had poured butter and fat into our fish; nor we could not get them once to drinke with us, because our cup was somewhat greasie, they were so superstitious touching their fasting and religion. Neither would they lend vs any of their cups to drinke in, least they should likewise be greased. At that time the wind was [constantly] north-west.

The 23 of August the cooke began to knead our meale, and made vs bread thereof; which being don, and the wind and the weather beginning to be somewhat better, we made our selues ready to depart from thence; at which time, when the Russians came from fishing, our maister gaue their chiefe commander a good peece of mony[3] in regard of the

[1] *Ende gedroncken van den claren, als in den Rhijn voorby Colen loopt*—and drank of the *pure article*, such as flows past Cologne in the Rhine. There is here a play on the word *clar*, which signifies "clear", "pure", but is applied to spirits as well as to water. In common life, *een glaasje klare* means "glass of neat Hollands gin".

[2] *Ons ander maets*—our other comrades.

[3] *Een goeden drincpennick*—a handsome present: *lit.* a good drink-penny.

frendship that he had shewed vs, and gaue some what also to the cooke,[1] for the which they yielded vs great thankes. At which time, the chiefe of the Russians [having before] desired our maister to giue him some gunpowder, which he did, [and he also thanked him much.] And when we were ready to saile from thence, we put a sacke of meale [out of our boat] into the boate,[2] least we should chance to stray one from the other againe, that they might help themselues therewith. And so about euening, when the sunne was west, we set saile and departed from thence when it began to be high water, and with a north-east wind held our course north-west along by the land.

The 24 of August the wind blew east, and then, the sunne being east, we got to the Seuen Islands,[3] where we found many fishermen, of whom we enquired after Cool and Kilduin, and they made signes that they lay west from vs, (which we likewise gest to be so.) And withall they shewed vs great frendship, and cast a cod into our scute, but for that we had a good gale of wind[4] we could not stay to pay them for it, but gaue them great thanks, much wondering at their great courtesy. And so, with a good gale of wind, we arriued before the Seven Islands when the sun was south-west, and past between them and the land, and there found certaine fishermen, that rowed to vs,[5] and asked vs where our crable (meaning our ship) was, whereunto wee made answer with as much Russian language as we had learned, and said, *Crable pro pal*[6] (y^{t} is, our ship is lost), which they

[1] *Den cock mede betaelt*—also paid the cook.

[2] *Den bock*—the yawl.

[3] See page 203, note 4.

[4] *Also wy goeden voortgang hadden*—as we were making good way.

[5] *Met goeden voortgangh seylende, quamen wy ontrent de z. w. son verby de selvige eylanden langs de wal henen, onder eenighe visschers die na ons toe royden*—making good speed, we passed the said islands about south-west sun, and sailed along the coast among some fishermen, who rowed towards us.

[6] *Crabble propal.* See page 224.

vnderstanding said vnto vs, *Cool Brabouse crable*,[1] whereby we vnderstood that at Cool there was certaine Neatherland ships, but we made no great account thereof, because our intent was to saile to Ware-house,[2] fearing least the Russians or great prince of the country would stay vs there.[3]

The 25 of August, sailing along by the land with a south-east wind, about the south sun we had a sight of Kilduin, at which time we held our course west north-west. And sailing in that manner between Kilduin and the firme land, about the south south-west sunne we got to the west end of Kilduin. And being there [we] lookt [out sharp] if we could see any houses or people therein, and at last we saw certaine Russian lodgies[4] that lay [hauled up] upon the strand, and there finding a conuenient place for vs to anchor with our scutes while we went to know if any people were to be found, our maister put in with the land,[5] and there found five or six small houses, wherein the Laplanders dwelt, of whom he[6] asked if that were Kilduin, whereunto they made answere and shewed vs that it was Kilduin, and said y^t^ at Coola there lay three Brabants crables or ships, whereof two were that day to set saile; which we hearing determined to saile to Ware-house, and about the west south-west sunne put off from thence with a south-east wind. But as we were vnder saile, the wind blew

[1] *Tot Cool Brabanse crable.* A mixture of Dutch and Russian, meaning "at Kola there are Brabant ships". The correct Russian is *v'Kolye Brabantskyie korabli.* Before the independence of the northern provinces, the entire Netherlands were under the rule of the Dukes of Brabant; and as the Dutch vessels trading to the northern coasts of Europe had first come there under the Brabant flag, the Russians not unnaturally continued to attach the name of Brabant to them in common with other Netherlandish vessels.

[2] *Waerhuysen.* See page 39, note 1.

[3] *Dat de Russen oft Grootvorst ep haer grensen ons eenich verlet soude doen*—that the Russians or (their) Grand Prince might do us some injury on their frontiers.

[4] Boats.

[5] *Wat te lantwaerts ingegaen*—going a little way on shore.

[6] "We."—*Ph.*

so stiffe [from the south-east] that we durst not keepe the sea in the night time, for that the waues of the sea went so hollow, that we were still in doubt that they would smite the scutes to the ground,[1] and so tooke our course behind two clifts[2] towards our land. And when we came there, we found a small house vpon the shore, wherein there was three men and a great dogge, which receiued vs very friendly, asking vs of our affaires and how we got thither; whereunto we made answere and shewed them that we had lost our ship, and that we were come thither to see if we could get a ship that would bring vs into Holland; whereunto they made vs answere, as the other Russians had done, that there was three ships at Coola, whereof two were to set saile from thence that day. Then we asked them if they would goe with one of our men by land to Coola, to looke for a ship wherewith we might get into Holland, and said we would reward them well for their paines; but they excused themselues, and said that they could not go from thence, but they sayd that they would bring vs ouer the hill, where we should finde certaine Laplanders whom they thought would goe with vs, as they did; for the maister and one of our men going with them ouer the hill, found certaine Laplanders there, whereof they got one to go with our man, promising him two royals of eight[3] for his pains. And so the Laplander going with him, tooke a peece on his necke,[4] and our man a boate hooke, and about euening they set forward,[5] the wind as then being east and east north-east.

[1] *Wy meenden dat se telckemael de schuyten in den grout gesmeten souden hebben*—we thought that each wave would have swamped the boats.

[2] *Twee clippen*—two cliffs or rocks.

[3] *Twee realen van achten.* This, though incorrect, was an usual expression in Dutch It means, properly, two Spanish dollars *of eight reals.*

[4] *Nam een roer mede*—took a musket with him.

[5] *Ende trocken noch teghen den nae nacht op ter loop*—and set off before break of day—*lit.* towards the after-night.

The 26 of August it was faire weather, the wind south-east, at which time we drew vp both our scutes vpon the land, and tooke all the goods out of them, to make them the lighter.[1] Which done, we went to the Russians and warmed vs, and there dressed such meates[2] as we had; and then againe wee began to make two meales a day, when we perceiued that we should euery day find more people, and we drank of their drink which they call *quas*,[3] which was made of broken peeces of [mouldy] bread, and it tasted well, for in long time we had drunke nothing else but water. Some of our men went [somewhat] further into the land, and there found blew berries and bramble berries,[4] which they plucked and eate, and they did us much good, for we found that they [perfectly] healed vs of our loosenesse.[5] The wind still blew south-east.

The 27 of August it was foule weather with a great storm [out of the] north and north north-west, so that in regard that the strand was low,[6] and as also for that the spring tide was ready to come on, we drew our scutes a great way vp vpon the land. [And when we had thus drawn them much higher up than we had done before, on account of the high water[7]], we went [still further upwards] to the Russians, to warme vs by their fire and to dress our meate. Mean time the maister

[1] *Om dat wat te verluchten*—to *air* them a little. [2] *Spyse*—food.

[3] *Quas*. The well-known Russian drink. Dr. Giles Fletcher, ambassador from Queen Elizabeth to the Emperor Fedor in 1588, describes it as "a thin drinke called Quasse, which is nothing else (as we say) but *water turned out of his wits*, with a little bran meashed with it."—*Purchas*, vol. iii, p. 459.

[4] *Blauwe-besyen met Braem-besyen*—bilberries and blackberries The latter are probably the *Moroschka* —cloudberries, or fruit of the mountain-bramble (*Rubus chamæmorus*),—the gathering and preparation of which by the females of Kola are described by Lütke, in page 223 of his oft-cited work.

[5] *Scheurbuyck*—scurvy. See page 152, note 2.

[6] *Wy daer een lager wal hadden*—we there had a lee shore.

[7] Phillip substitutes for this the words "this having done".

sent one of our men to the sea side to our scutes, to make a fire for vs vpon the strand, that when we came we might finde it ready, and that in the meane time the smoake might be gone. And while [the] one of our men was there, and the other was going thither,[1] the water draue se high that both our scutes were smitten into the water and in great danger to be cast away; for in the scute there was but two men and three in the boate, who with much labour and paine could hardly keep the scutes from being broken vpon the strand.[2] Which we seeing, were in great doubt,[3] and yet could not help them, yet God be thanked he had then brought vs so farre that neuerthelesse we could haue gotten home, although we should have lost our scutes, as after it was seene. That day and all night it rained sore, whereby we indured great trouble and miserie, being throughly wet, and could neither couer nor defend our selues from it; and yet they [who were] in the scutes indured much more, being forced to bee in that weather, and still in daunger to bee cast vpon the shore.[4]

The 28 of August it was indifferent good weather, and then we drew the scutes vpon the land againe, that we might take the rest of the goods out of them, [in order to avoid the like danger in which the boats had been,] because the wind still blew hard north and north north-west. And hauing drawne the scutes vp, we spread our sailes vpon them to shelter vs vnder them, for it was still mistie and rainie weather, much desiring to heare some newes of our man that was gone to Coola with the Lapelander, to

[1] *D'ander rast aenquamen*—the others were fast approaching.

[2] *De schuyten qualijck van den wal conden houden, dat se met in stucken ghesmeten werden*—could scarcely keep the boats from going on shore, and thereby being dashed to pieces.

[3] *Seer beducht*—much alarmed.

[4] *Datse in sulcken weer ende reghen aende legher wal verblyven moesten*—that in such wind and rain they should have had to lie under a lee shore.

know if there were any shipping at Coola to bring vs into Holland. And while we laie there we went [daily] into the land and fetcht some blew berries and bramble berries[1] to eate, which did vs much good.

The 29 of Angust it was indifferent faire weather, and we were still in good hope[2] to heare some good newes from Coola, and alwaies looked vp towards the hill to see if our man and the Lapelander came; but seeing they came not[3] we went to the Russians againe, and there drest our meate [at their fire], and then ment[4] to goe to our scutes to lodge in them all night. In the meane time we spied the Laplander [upon the hill] comming alone without our man, whereat we wondred and were some what in doubt;[5] but when he came vnto vs, he shewed vs a letter that was written vnto our maister, which he opened before vs, the contents thereof being that he that had written the letter wondred much at our arriuall in that place, and that long since he verily thought that we had beene all cast away,[6] being exceeding glad of our happy fortune,[7] and how that he would presently come vnto vs with victuales and all other necessaries to succour vs withall. We being in no small admiration who it might be that shewed vs so great fauour and friendship, could not imagine what he was, for it appeared by the letter that he knew vs well. And although the letter was subscribed "by me John Cornelison Rip,"[8] yet we could not be perswaded that it was the same John Cornelison, who the yeere before had beene set out in the other ship [at the same

[1] See page 249, note 4.

[2] *Met lijtsaemheyt verhopende*—hoping with resignation.

[3] *Ende de saecke dien dach opghevende*—and giving the matter up for that day.

[4] Meant.

[5] *In beducht*—in fear.

[6] *Dat wy al lange om den hals gecomen waren*—that we had lost our lives long ago.

[7] *Over onse comste*—of our arrival.

[8] *Jan Cornelisz. Rijp.* See page 71.

time] with vs, and left vs about the Beare Iland.[1] For those goode newes we paid the Lapelander his hier,[2] and beside that gaue him hoase, breeches and other furniture,[3] so that he was apparelled like a Hollander; for as then we thought our selues to be wholy out of danger,[4] and so being of good comfort, we laid vs downe to rest. Here I cannot chuse but shew you how fast the Lapelander went: for when hee went to Coola, as our companion told vs, they were two dayes and two nights on the way, and yet went a pace, and when he came backe againe he was but a day and a night comming to vs, which was wonderful, it being but halfe ye time, so that we said, and verily thought, that he was halfe a coniurer;[5] and he brought vs a partridge, which he had killed by the way as he went.

The 30 of August it was indifferent faire weather, we still wondering who that John Cornelison might be that had written vnto vs; and while we sat musing thereon, some of vs were of opinion that it might be the same John Cornelison that had sayled out of Holland in company with vs, which we could not be perswaded to beleeue, because we were in as little hope of his life as hee of ours, supposing that he had sped worse then we, and long before that had [perished or] beene caste away. At last the master said, I will looke amongst my letters, for there I haue his name written,[6] and that will put us out of doubt. And so, looking amongst them, we found that it was the same John Cornelison, wherewith we were as glad of his safety and welfare as he was of ours. And while we were speaking thereof, and that some

[1] See page 85.

[2] *Zijn beloofde penningen*—his promised reward: *lit.* pence.

[3] Clothes.

[4] *Ghenoech in behouden haven*—sufficiently in a safe port.

[5] *Dat wy tot malcanderen seyde, hy moet kunsgens kunnen*—so that we said to one another, he must know some (conjuring) tricks.

[6] *Daer heb ick zijn hant noch wel*—there I certainly still have his handwriting.

of vs would not beleeue that it was the same John Cornelison, we saw a Russian joll[1] come rowing, with John Cornelison and our companion that we had sent to Coola; who being landed, we receiued and welcomed each other w^t great joy and exceeding gladnesse, as if either of vs on both sides had seene each other rise from death to life again; for we esteemed him, and he vs, to be dead long since. He brought vs a barrell of Roswicke beere,[2] wine, aqua uite,[3] bread, flesh, bacon, salmon, suger, and other things, which comforted and releeued vs much. And wee rejoyced together for our so vnexpected [safety and] meeting, at that time giuing God great thankes for his mercy shewed vnto vs.

The 31 of August it was indifferent faire weather, the wind easterly, but in the evening it began to blow hard from the land; and then we made preparation to saile from thence to Coola, first taking our leaues of the Russians, and heartily thanking them for their curtesie showed vnto vs, and gaue them a peece of money[4] for their good wils, and at night about the north sunne we sailed from thence with a high water.[5]

The 1 of September in the morning, with the east sunne, we got to ye west side of the river of Coola,[6] and entered into it, where we [sailed and] rowed till the flood was past, and then we cast the stones that serued vs for anchors vpon the ground, at a point of land, till the flood came in againe. And when the sunne was south, wee set saile againe with the flood, and so sailed and rowed till midnight, and then we cast anchor againe till morning.

[1] *Een jol*—a yawl.

[2] *Rostwijcker-bier*. A strong beer brewed at Roswick, a town of Sweden, in West Bothnia.

[3] *Brandewijn*—spirits distilled from malt; common Hollands gin.

[4] *Een stuck ghelts*—some money.

[5] *Mettet hoochste water*—at high water; at the top of the tide.

[6] "The entrance to Kola, which by some is most incorrectly called a river, is one of those bays to which the English apply the designation of Inlet or Frith."—*Lütke*, p. 225.

The 2 of September in the morning we rowed vp the riuer, and as we past along we saw some trees on the riuer side, which comforted vs and made vs as glad as if we had then come into a new world, for in all the time y^t^ we had beene out we had not seene any trees; and when we were by the salt kettles,[1] which is about three [12] miles from Coola, we stayed there awhile and made merry, and then went forward againe, and with the west north-west sun got to John Cornelisons ship, wherein we entred and drunke.[2] There wee began to make merry againe with the sailers that were therein and that had beene in the voiage with John Cornelison the yeare before and bad each other welcome. Then we rowed forward, and late in the euening got to Coola, where some of vs went on land, and some stayed in the scutes to looke to the goods, to whom we sent milke and other things to comfort and refresh them; and we were all exceeding glad that God of his mercy had deliuered vs out of so many dangers and troubles, and had brought vs thither in safety: for as then wee esteemed our selues to be safe, although ye place in times past, lying so far from vs, was as much vnknowne vnto vs as if it had beene out of the world, and at that time, being there, we thought y^t^ we were almost at home.

The 3 of September we vnladed all our goods, and there refreshed our selues after our toylesome and weary iourney and the great hunger that we had indured, thereby to recouer our healthes and strengthes againe.

The 11 of September,[3] by leaue and consent of the

[1] *De soutketen*—the salt-works. The buildings in which the manufacture of salt is carried on are called in Dutch *keten*.

[2] *Daer wy eens overclommen ende droncken daer eens*—into which we clambered up, and there had something to drink.

[3] *Den elfden dag*—on the eleventh day. This would seem to have been the eleventh day *after their arrival*, or after the 3rd of September, rather than the 11th of the month. Reckoned exclusively of that day, it would have been the 14th of September; and it is reasonable to suppose that they would not have parted with their boats till they had found a Russian *lodja* to receive them.

bayart,[1] gouernour for the Great Prince of Muscouia, we brought our scute and our boate into the merchants house,[2] and there let them stand[3] for a remembrance of our long, farre, and neuer before sailed way, and that we had sailed in those open scutes almost 400 Dutch [1600] miles, through and along by the sea coasts to the towne of Coola, whereat the inhabitants thereof could not sufficiently wonder.

The 15 of Sep[tember] we went into a lodgie [and sailed down the river] w^t^ all our goods and our men to John Cornelisons ship, which lay about half a mile [2 miles] from the towne, and that day [at noon] sailed in the ship [further] downe the riuer til we were beyond the narrowest part therof, which was about half the riuer, and there staied for John Cornelison and our maister, that said they would come to vs the next day.

The 17 of September [in the evening] John Cornelison and our maister being come abord, the next day about the east sunne we set saile out of the riuer [of] Coola, and with Gods grace put to sea to saile hom-wards; and being out of the riuer we sailed along by the land north-west and by north, the wind being south.

The 19 of September, about the south sunne, we got to Ware-house, and there ankored and went on land, because John Cornelison was there to take in more goods, and staid there til the sixt of October, in the which time we had a[4] hard wind out of the north and north-west. And while we stayed there we refreshed our selues somewhat better, to recouer [from] our sicknesse and weaknesse againe, that we

[1] *Den Bayaert*—the boyard; a Russian title, signifying a nobleman, great man, or chief.

[2] *Int coopmans huys.* This is a literal translation of the Russian *gostinuy dvor'*, which is a collection of shops, corresponding to the *bazar* of the Persians. It is usually, but not invariably, situated in or near the market-place.

[3] *Lieten die daer staen*—left them there.

[4] *Veel*—much.

might grow stronger, which asked sometime,[1] for we were much spent and exceeding weake.

The 6 of October, about euening, the sunne being south-west, we set saile, and with Gods grace, from Ware-house for Holland; but for that it is a common and well knowne way, I will speak nothing thereof, only that vpon the 29 October we ariued in the Mase[2] with an east north-east wind, and the next morning got to Maseland sluce,[3] and there going on land, from thence rowed to Delfe, and then to the Hage, and from thence to Harlem;[4] and vpon the first of Nouember about noone got to Amsterdam, in the same clothes that we ware in Noua Zembla, with our caps furd with white foxes skins,[5] and went to the house of Peter Hasselaer, that was one of the marchants that set out the two ships,[6] which were conducted by John Cornelison and our maister. And being there, where many men woundred to see vs, as hauing estemed vs long before that to haue bin dead and rotten, the newes thereof being spread abroad in the towne, it was also caried to the Princes Courte in the Hage,[7] at which time the Lord Chancelor of Denmark, ambassador for the said king, was then at dinner with Prince Maurice.[8] For the which cause we were presently fetcht

[1] *Dat metter tijt gheschieden moeste*—which required some time.

[2] *De Maes*—the river Maas or Meuse.

[3] *Maeslantsluys.* A town on the river Maas, opposite the Briel.

[4] *Reysde also deur Delft, den Haech ende Haerlem*—thence travelled through Delft, the Hague, and Haerlem.

[5] *Bonte mutsen van witte vossen*—white fox-skin caps.

[6] *Een van de bewinthebbers der stadt van Amstelredam gheweest was, tot nytrustinge van de twee schepen*—who had been one of the managers, on behalf of the town of Amsterdam, for fitting out the two ships.

[7] *Int Princen Hof.* This was formerly the Court of Admiralty at Amsterdam. But when the Town-House was given as a palace to Louis Napoleon, then King of Holland, the Prinzen Hof was converted into the Town-House, which it still is.

[8] *Aldaer op die tijdt mijn E. Heeren den Cancelier ende Ambassadeur van den Allerdoorluchtichsten Coninck van Dennemarcken, Noorweghen,*

thither by the scout and two of the burgers of the towne,[1] and there in the presence of those ambassadors[2] and the burger masters we made rehearsall of our journey both forwards and backewards.[3] And after that, euery man that dwelt thereabouts went home, but such as dwelt not neere to that place were placed in good lodgings for certaine daies, vntill we had receiued our pay, and then euery one of vs departed and went to the place of his aboad.

The Names of those that came home againe from this[4] *Voiage were*[5]:—

Jacob Hemskeck, Maister and Factor.
Peter Peterson Vos.

Gotten ende Wenden over tafel sadt—where the noble lords, the chancellor and the ambassador from the most illustrious King of Denmark, Norway, Goths and Vandals, were then at table. In the original there is not a word about Prince Maurice and the Hague.

[1] *Mijn Heer de Schout ende twee Heeren van der stadt*—master sheriff and two gentlemen of the town (*i.e.*, town-councillors).

[2] *Den voornoemde Heere Ambassadeur*—the said lord ambassador.

[3] *Onse reysen ende wedervaren*—our voyages and adventures.

[4] Phillip here inserts the word "dangerous".

[5] The names will be here repeated, for the purpose of giving them correctly, and also showing those who died during the voyage:—

Iacob Heemskerck, *Supercargo and Skipper.*
† Willem Barentsz., *Pilot* (died June 20th, 1597).
Pieter Pietersz. Vos.
Gerrit de Veer.
M. Hans Vos, *Barber-surgeon.*
† Name unknown, *Carpenter* (died September 23rd, 1596).
Iacob Iansz. Sterrenburgh.
Lenaert Heyndricksz.
Laurens Willemsz.
Ian Hillebrantsz.
Iacob Iansz. Hooghwout.
Pieter Cornelisz.
Ian van Buysen Reyniersz.
Iacob Evertsz.
† Name unknown (died January 27th, 1597).
† Claes Andriesz. (died June 20th, 1597).
† Ian Fransz. (died July 5th, 1597).

Geret de Veer.
Maister Hans Vos, Surgion.
Jacob Johnson, Sterenburg.
Lenard Hendrickson.
Laurence Williamson.
John Hillbrantson.
Jacob Johnson Hooghwont.
Peter Cornelison.
John Vous Buysen.
and Jacob Euartson.

FINIS.

These make up the ship's company, which originally consisted of seventeen persons in all. The seeming discrepancy with regard to two of the names, as they appear in the list in page 193, is easily explained away. Iacob Ianszoon Hooghwout, of Schiedam, and Ian van Buysen Reynierszoon, have here their family names given in addition to their patronymics, which latter alone they had signed in the former list.

APPENDIX.

A LETTER FROM JOHN BALAK TO GERARD MERCATOR.—HENRY HUDSON'S ACCOUNT OF HIS VISIT TO NOVAYA ZEMLYA.—WRITINGS OF WILLIAM BARENTS PRESERVED BY PURCHAS.

APPENDIX.

I.

A LETTER FROM JOHN BALAK TO GERARD MERCATOR.

[*Hakluyt, Principal Navigations*, vol. i, pp. 509-510.]

A learned epistle, written, 1581, unto the famous Cosmographer, M. Gerardus Mercator, concerning the riuer Pechora, Naramsay, Cara reca, the mighty riuer of Ob, the place of Yaks Olgush in Siberia, the great riuer Ardoh, the lake of Kittay called of the borderers Paraha, [and] the countrey of Carrah Colmak; giving good light to the discouery of the northeast passage to Cathay, China, and the Malucaes.

Inclyto & celebri Gerardo Mercatori, domino & amico singulari, in manus proprias Duisburgi in Cliuia.

Cvm meminissem, amice optime, quanta, cum vnà ageremus, delectatione afficerere in legendis geographicis scriptis Homeri, Strabonis, Aristotelis, Plinij, Dionis et reliquorum, lætatus sum eo quod incidissem in hunc nuncium, qui tibi has literas tradit, quem tibi commendatum esse valde cupio, quique dudum Arusburgi hîc ad Ossellam fluuium appulit. Hominis experientia, vt mihi quidem videtur, multum te adiuuerit in re vna, eaque summis à te votis expetita, et magnopere elaborata, dequa tam varie inter se dissentiunt cosmographi recentiores: patefactione nimirum ingentis illius Promontorij Tabin, celebrisque illius & opulentæ regionis sub Cathayorum rege per oceanum ad orientem

brumalem. Alferius is est natione Belga, qui captiuus aliquot annos vixit in Moscouitarum ditione, apud viros illic celeberrimos Yacouium & Vnekium; à quibus Antuerpiam missus est accersitum homines rei nauticæ peritos, qui satis amplo proposito præmio ad illos viros se recipiant, qui Sueuo artifice duas ad eam patefactionem naues ædificarunt in Duina fluuio. Vt ille rem proponit, quamquam sine arte, apposite tamen, & vt satis intelligas, quod quæso diligenter perpendas, aditus ad Cathayam per orientem proculdubio breuissimus est & admodum expeditus. Adijt ipse fluuium Obam tum terra per Samoedorum & Sibericorum regionem, tum mari per littus Pechoræ fluminis ad orientem. Hac experientia confirmatus certò apud se statuit nauim mercibus onustam, cuius carinam non nimium profundè demissam esse vult, in sinum S. Nicolai conducere in regione Moscouitarum, instructam illam quidem rebus omnibus ad eam patefactionem necessarijs, atque illic redintegrato commeatu, Moscouiticæ nationis notissimos iusta mercede asciscere, qui et Samoedicam linguam pulchre teneant, & fluuium Ob exploratum habeant, vt qui quotannis ea loca ventitant. Vnde Maio exeunte constituit pergere ad orientum per continentem Vgoriæ ad orientales partes Pechoræ, insulamque cui nomen est Dolgoia. Hîc latitudines obseruare, terram describere, bolidem demittere, locorumque ac punctorum distantias annotare, vbi & quoties licebit. Et quoniam Pechoræ sinus vel euntibus vel redeuntibus commodissimus est tum subsidij tum diuersorij locus proper glaciem & tempestates, diem impendere decreuit cognoscendis vadis, facillimoque nauium aditu inueniendo: quo loco antehac aquarum altitudinem duntaxat ad quinque pedes inuenit, sed profundiores canales esse non dubitat: deinde per eos fines pergere ad tria quatuorve milliaria nautica, relicta insula, quam Vaigats vocant, media forè via inter Vgoriam & Nouam Zemblam: tum sinum quendam præterire inter Vaigats atque Obam, qui per meridiem vergens pertingit ad

terram Vgoriæ, in quem confluunt exigui duo amnes, Marmesia atque Carah, ad quos amnes gens alia Samoedorum accolit immanis & efferata. Multa in eo tractu loca vadosa, multas cataractas inuenit, sed tamen per quas possit nauigari. Vbi ad fluuium Obam peruentum fuerit, qui quidem fluuius (vt referunt Samoedi) septuaginta habet ostia, quæ propter ingentem latitudinem multas magnasque concludentem insulas, quas varij incolunt populi, vix quisquam animaduertat, ne temporis nimium impendat, constituit ad summum tria quatuorve tentare ora, ea præsertim quæ ex consilio incolarum, quos in itinere aliquot habiturus est, commodissima videbuntur, triaque quatuorve eius regionis nauigiola tentandis ostijs adhibere, quàm fieri potest ad littus proxime, (quod quidem sub itinere trium dierum incolitur) vt quo loco tutissime nauigari possit, intelligat.

Quod si nauim per fluuium Obam aduerso amne possit impellere, prima si poterit cataracta, eaque, vt verisimile est, commodissima, ad eumque locum appellere, quem aliquando ipse cum suis aliquot per Sibericorum regionem terra adijt, qui duodecim iuxta dierum itinere distat à mari, qua influit in mare flumen Ob, qui locus est in continente, propè fluuium Ob cui nomen est Yaks Olgush, nomine mutuato ab illo magno profluente flumini Ob illabente, tum certè speraret maximas se difficultates superasse. Referunt enim illic populares, qui trium duntaxat dierum nauigatione ab eo loco abfuerunt (quod illic rarum est, eo quòd multo ad vnum duntaxat diem cymbas pelliceas à littore propellentes oborta tempestate perierunt, cùm neque à sole neque à syderibus rectionem scirent petere) per transuersum fluminis Ob, vnde spaciosum esse illius latitudinem constat, grandes se carinas præciosis onustas mercibus magno fluuio delatas vidisse per nigros, puta Æthiopes. Eum fluuium Ardoh illi vocant, qui influit in lacum Kittayum, quem Paraha illi nominant, cui contermina est gens illa latissimè fusa, quam Carrah Colmak appellant, non alia certè quàm Cathaya. Illic, si necessitas

postulabit, opportunum erit hybernare, se suosque reficere resque omnes necessarias conquirere. Quod si acciderit, non dubitat interim plurimùm se adiutum iri, plura illic quærentum atque ediscentem. Veruntamen sperat æstate eadem ad Cathayorum fines se peruenturum, nisi ingenti glacici mole ad os fluuij Obæ impediatur, quæ maior interdum, interdum minor est. Tum per Pechoram redire statuit, atque illic hybernare: vel si id non poterit, in flumen Duinæ, quo mature satis pertinget, atque ita primo vere proximo in itinere progredi. Vnum est quod suo loco oblitus sum. Qui locum illum Yaks Olgush incolunt, à maioribus suis olim prædicatum asserunt, se in lacu Kitthayo dulcissimam campanarum harmoniam audiuisse, atque ampla ædificia conspexisse. Et cùm gentis Carrah Colmak mentionem faciunt (Cathaya illa est) ab imò pectore suspiria repetunt, manibusque proiectis suspiciunt in cœlum, velut insignem illius splendorum inuentes atque admirantes. Vtinam Alferius hic cosmographiam melius saperet, multum ad illius vsum adiungeret, qui sanè plurimus est. Multa prætereo, vir amicissime, ipsumque hominem te audire cupio, qui mihi spospondit se in itinere Duisburgi te visurum. Auet enim tecum conferre sermones, & procul dubio hominem multum adiueris. Satis instructus videtur pecunia & gratia, in quibus alijsque officijs amicitiæ feci illi, si vellet, mei copiam. Deus Optimus maximus hominis votis atque alacritati faueat, initia secundet, successus fortunet, exitum fœlicissimum concedat. Vale amice ac Domine singularis.

Arusburgi ad Ossellam fluuium 20 Februarij, 1581.

Tuus quantus quantus sum

Joannes Balakus.

II.

AN ACCOUNT OF HENRY HUDSON'S VISIT TO NOVAYA ZEMLYA.

Extracted from "A Second Voyage or Employment of Master Henry Hudson, for finding a Passage to the East Indies by the North-East: written by himselfe." Printed in Purchas his Pilgrimes, vol. iii, pp. 577-579.

[*June*, 1608.] The sixe and twentieth, faire sun-shining weather, and little wind at east north-east. From twelue a clocke at night till foure this morning we stood southward two leagues, sounding wee had sixtie sixe fathome oaze, as afore. From four a clocke to noone, south-east and by south foure leagues, and had the sunne on the meridian on the south-east and by south point of the compasse, in the latitude of 72 degrees 25 minutes, and had sight of Noua Zembla foure or five leagues from vs, and the place called by the Hollanders Swart Cliffe bearing off south-east. In the after-noone wee had a fine gale at east north-east, and by eight of the clocke we had brought it to beare off vs east southerly, and sayled by the shoare a league from it.

The seuen and twentieth, all the fore-noone it was almost calme. Wee being two mile from the shoare, I sent my mate Robert Iuet and Iohn Cooke my boat-swaine on shoare, with foure others, to see what the land would yeeld that might bee profitable, and to fill two or three caskes with water. They found and brought aboord some whales finnes, two deeres hornes, and the dung of deere, and they told me that they saw grasse on the shoare of the last yeere, and young grasse came up amongst it a shaftman long, and it was boggie ground in some places; there are many streames of

snow water nigh, it was very hot on the shoare, and the snow melted apace; they saw the footings of many great beares, of deere, and foxes. They went from vs at three a clocke in the morning, and came aboord at a south-east sunne; and at their comming we saw two or three companies of morses in the sea neere vs swimming, being almost calme. I presently sent my mate, Ladlow the carpenter, and sixe others ashoare, to a place where I thought the morses might come on the shoare; they found the place likely, but found no signe of any that had beene there. There was a crosse standing on the shoare, much driftwood, and signes of fires that had beene made there. They saw the footing of very great deere and bears, and much fowle, and a foxe; they brought aboord whale finnes, some mosse, flowers, and greene things, that did there grow. They brought also two peeces of a crosse, which they found there. The sunne was on the meridian on the north north-east, halfe a point easterly, before it began to fall. The sunnes height was 4 degrees 45 minutes, inclination 22 degrees 33 minutes, which makes the latitude 72 degrees 12 minutes. There is disagreement betweene this and the last obseruation; but by meanes of the cleerenesse of the sunne, the smoothnesse of the sea, and the neerness to land, wee could not bee deceiued, and care was taken in it.

The eight and twentieth, at foure a clocke in the morning, our boat came aboord, and brought two dozen of fowle, and some egges, whereof a few were good, and a whales finne; and wee all saw the sea full of morses, yet no signes of their being on shoare. And in this calme, from eight a clocke last eeuening till foure this morning, wee were drawne backe to the northward as farre as wee were the last eeuening at foure a clocke by a streame or a tide; and wee choose rather so to driue, then to aduenture the losse of an anchor and the spoyle of a cable. Heere our new ship-boate began to doe vs seruice, and was an incouragement to my companie, which want I found the last yeere.

The nine and twentieth, in the morning calme, being halfe a league from the shoare, the sea being smooth, the needle did encline 84 degrees; we had many morses in the sea neere vs, and desiring to find where they came on shoare, wee put to with sayle and oares, towing in our boat and rowing in our barke, to get about a point of land, from whence the land did fall more easterly, and the morses did goe that way. Wee had the sunne on the meridian on the south and by west point, halfe a point to the wester part of the compasse, in the latitude of 71 degrees 15 minutes. At two a clocke this after-noone we came to anchor in the mouth of a riuer, where lieth an iland in the mouth thereof foure leagues: wee anchored from the iland in two and thirtie fathomes blacke sandy ground. There droue much ice out of it with a streame that set out of the river or sound, and there were many morses sleeping on the ice, and by it we were put from our road twice this night; and being calme on this day, it pleased God at our neede to giue vs a fine gale, which freed vs out of danger. This day was calme, cleere and hot weather: all the night we rode still.

The thirtieth, calme, hot, and faire weather: we weighed in the morning, and towed and rowed, and at noone we came to anchor neere the ile aforesaid in the mouth of the riuer, and saw very much ice driuing in the sea, two leagues without vs, lying south-east and north-west, and driving to the north-west so fast, that wee could not by twelve a clocke at night see it out of the top. At the iland where wee rode lieth a little rocke, whereon were fortie or fiftie morses lying asleepe, being all that it could hold, it being so full and little. I sent my companie ashoare to them, leauing none aboord but my boy with mee; and by meanes of their neerenesse to the water they all got away, saue one which they killed, and brought his head aboord; and ere they came aboord they went on the iland, which is reasonable high and steepe, but flat on the top. They killed and brought with

them a great fowle, whereof there were many, and likewise some egges, and in an houre they came aboord. The ile is two flight-shot ouer in length, and one in breadth. At midnight our anchor came home, and wee tayld aground by meanes of the strength of the streame; but by the helpe of God wee houed her off without hurt. In short time wee moued our ship, and rode still all night; and in the night wee had little wind at east and east south-east. Wee had at noone this day an obseruation, and were in the latitude of 71 degrees 15 minutes.

The first of July wee saw more ice to seaward of vs, from the south-east to the north-west, driuing to the north-west. At noone it was calme, and we had the sunne on the meridian on the south and by west point, halfe a point to the westerly part of the compasse, in the latitude of 71 degrees 24 minutes. This morning I sent my mate Eueret and foure of our companie, to rowe about the bay, to see what riuers were in the same, and to find where the morses did come on land, and to see a sound or great riuer in the bottome of the bay, which did alwaies send out a great streame to the northwards, against the tide that came from thence: and I found the same, in comming in from the north to this place, before this. When, by the meanes of the great plenty of ice, the hope of passage betweene Newland and Noua Zembla was taken away, my purpose was by the Vaygats to passe by the mouth of the river Ob, and to double that way the north cape of Tartaria, or to giue reason wherefore it will not be: but being here, and hoping by the plentie of morses wee saw here to defray the charge of our voyage; and also that this sound might for some reasons bee a better passage to the east of Noua Zembla than the Vaygats, if it held according to my hope conceiued by the likenesse it gaue: for whereas we had a floud came from the northwards, yet this sound or riuer did runne so strong, that ice with the streame of this riuer was carried away, or anything else, against the

floud: so that both in floud and ebbe, the streame doth hold a strong course, and it floweth from the north three houres, and ebbeth nine.

The second, the wind being at east south-east, it was reasonable cold and so was Friday; and the morses did not play in our sight as in warme weather. This morning at three of the clocke, my mate and companie came aboord, and brought a great deeres horne, a white locke of deeres haire, foure dozen of fowle, their boat halfe laden with drift wood, and some flowers and greene things, that they found growing on the shoare. They saw a herd of white deere of ten in a companie on the land, much drift wood lying on the shoare, many good bayes, and one riuer faire to see to, on the north shoare, for the morses to land on; but they saw no morses there, but signes that they had beene in the bayes. And the great riuer or sound, they certified me, was of breadth two or three leagues, and had no ground at twentie fathoms and that the water was of the colour of the sea, and very salt, and that the stream setteth strongly out of it. At sixe a clocke this morning, came much ice from the southward driuing upon us, very fearefull to looke on; but by the mercy of God and his mightie helpe, wee being moored with two anchors ahead, with vering out of one cable and heaning home the other, and fending off with beams and sparres, escaped the danger: which labour continued till sixe a clocke in the euening, and then it was past vs, and we rode still and tooke our rest this night.

The third, the wind at north a hard gale. At three a clocke this morning wee weighed our anchor, and set sayle, purposing to runne into the riuer or sound before spoken of.

The fourth, in the morning, it cleered up with the wind at north-west; we weighed and set sayle, and stood to the eastwards, and passed ouer a reefe and found on it fiue and a halfe, sixe, sixe and a halfe and seuen fathoms water: then wee saw that the sound was full and a very large riuer

from the north-eastward free from ice, and a strong streame comming out of it; and we had sounding then, foure and thirtie fathoms water. Wee all conceiued hope of this northerly riuer or sound; and sayling in it, wee found three and twentie fathomes for three leagues, and after twentie fathomes for fiue or sixe leagues, all tough ozie ground. Then the winde vered more northerly, and the streame came downe so strong, that we could doe no good on it; we come to anchor, and went to supper, and then presently I sent my mate Iuet, with fiue more of our companie, in our boat with sayle and oares, to get up the riuer, being prouided with victuals and weapons for defence, willing them to sound as they went, and if it did continue still deepe, to go untill it did trende to the eastward or to the southwards; and wee rode still.

The fift, in the morning, we had the wind at west: we began to weigh anchor, purposing to set sayle, and to ruune vp the sound after our companie: then the wind vered northerly upon vs, and we saued our labour. At noone our companie came aboord vs, having had a hard rought; for they had beene vp the river sixe or seven leagues, and sounded it from twentie to three and twentie, and after brought it to eight, sixe, and one fathome, and then to foure foot in the best: they then went ashoare, and found good store of wilde goose quills, a piece of an old oare, and some flowers, and green things which they found growing: they saw many deere, and so did we in our after-dayes sayling. They being come aboord, we presently set sayle with the wind at north north-west, and we stood out againe to the south-westwards, with sorrow that our labour was in vaine: for, had this sound held as it did make shew of, for breadth, depth, safenesse of harbour, and good anchor ground, it might haue yeelded an excellent passage to a more easterly sea. Generally, all the land of Noua Zembla that yet wee haue seene, is to a mans eye a pleasant land; much mayne

high land with no snow on it, looking in some places greene, and deere feeding thereon ; and the hills are partly covered with snow, and partly bare. It is no maruell that there is so much ice in the sea towards the Pole, so many sounds and riuers being in the lands of Noua Zembla and Newland to ingender it; besides the coasts of Pechora, Russia, and Groenland, with Lappia, as by proofes I finde by my trauell in these parts: by means of which ice I suppose there will be no nauigable passage this way. This eeuening wee had the wind at west and by south: wee therefore came to anchor under Deere Point; and it was a storme at sea, wee rode in twentie fathomes, ozie ground: I sent my mate Ladlow, with foure more ashore, to see whether any morses were on the shoare, and to kill some fowle (for we had seene no morses since Saturday, the second day of this moneth, that wee saw them driuing out of the ice). They found good landing for them, but no signe that they had been there: but they found that fire had beene made there, yet not lately. At ten of the clocke in the eeuening they came aboord, and brought with them neere an hundred fowles called wellocks; this night it was wet fogge, and very thicke and cold, the winde at west south-west.

The sixt, in the morning, wee had the wind stormie and shifting, betweene the west and south-west, against us for doing any good: we rode still, and had much ice driuing by vs to the eastwards of vs. At nine of the clocke, this eeuening wee had the wind at north north-west: we presently weighed, and set sayle, and stood to the westward, being out of hope to find passage by the north-east: and my purpose was now to see whether Willoughbies Land were, as it is layd in our cardes; which if it were, wee might finde morses on it; for with the ice they were all driven from hence. This place vpon Noua Zembla, is another then that which the Hollanders call Costing Sarch, discouered by Oliuer Brownell: and William Barentsons obseruation doth wit-

nesse the same. It is layd in plot by the Hollanders out of his true place too farre north : to what end I know not, unlesse to make it hold course with the compasse, not respecting the variation. It is as broad and like to yeeld passage as the Vaygats, and my hope was, that by the strong streame it would haue cleered it selfe; but it did not. It is so full of ice that you will hardly thinke it.

III.

WRITINGS OF WILLIAM BARENTS, PRESERVED BY PURCHAS[1].

[*Purchas his Pilgrimes*, vol. iii, pp. 518-520.]

I thought good to adde hither for Barents or Barentsons sake, certaine notes which I have found (the one translated, the other written by him (amongst Master Hakluyts Paper).

This was written by William Barentson in a loose paper, which was lent mee by the Reuerend Peter Plantius in Amsterdam, March the seuen and twentieth, 1609.[2]

THE foure and twentieth of August, *stilo nouo*, 1595, wee spake with the Samoieds, and asked them how the land and sea did lye to the east of Way-gates. They sayd, after fiue dayes iourney going north-east, wee should come to a great sea, going south-east. This sea to the east of Way-gats they sayd was called *Marmoria*, that is to say, *a calme sea*.[3] And they of Ward-house haue told vs the same. I asked them if at any time of the yeere it was frozen ouer? They sayd it was. And that sometimes they passed it with sleds. And the first of September 1595, *stilo nouo*, the Russes of the lodie or barke affirmed the same; saying, that the sea is sometimes so frozen, that the lodies or barkes going sometimes to Gielhsidi from Pechora, are forced there to winter;

[1] Referred to in page cvi of the Introduction.

[2] This heading must have been written by Henry Hudson, and not by Hakluyt, as would at first sight appear.

[3] De Veer (p. 55) writes this name *Mermare*. In Russian, *more* certainly means "sea"; but this is all that we have been able to make out of the expression.

which Gielhsidi was wonne from the Tartars three yeeres past.

For the ebbe and flood there, I can finde none; but with the winde so runneth the streame. The third of September, *stilo nouo,* the winde was south-west, and then I found the water higher then with the winde at north north-east. Mine opinion is grounded on experience: that if there bee a passage, it is small, or else the sea could not rise with a southerly winde. And for the better proofe to know if there were a flood and ebbe, the ninth of September, *stilo nouo,* I went on shoare on the south end of the States Iland, where the crosse standeth, and layd a stone on the brinke of the water to proue whether there were a tide, and went round about the iland to shoote at a hare; and returning, I found the stone as I left it, and the water neither higher nor lowere: which prooueth, as afore, that there is no flood nor ebbe.

THE END.

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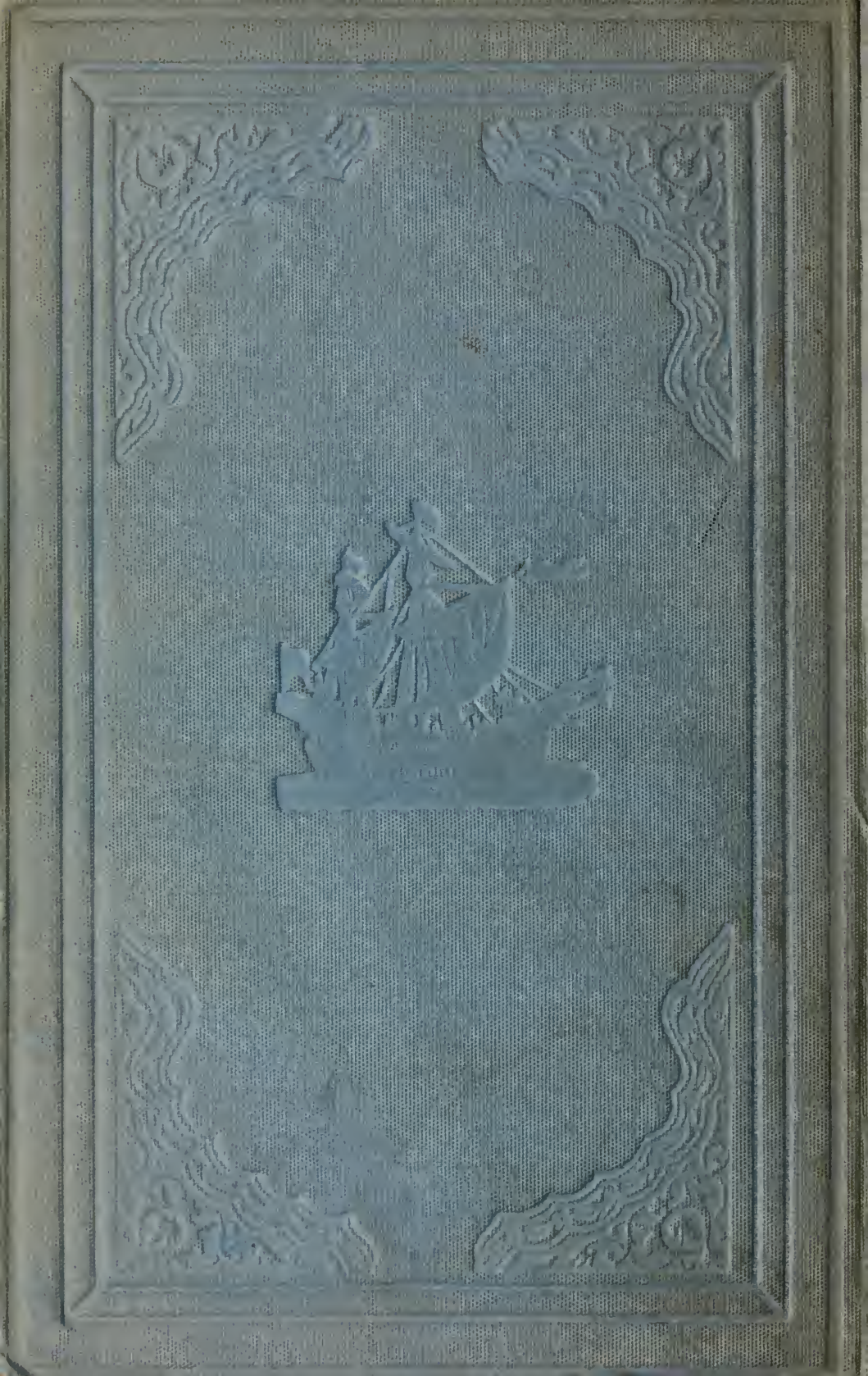
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